The Oliver-Sharpey Lectures

ON

HEART FAILURE.

DELIVERED BEFORE THE ROYAL COLLEGE OF PHYSICIANS OF LONDON,

BY

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LECTURE I.—AN ANALYSIS OF THE PRESENT-DAY CONCEPTION OF HEART FAILURE.

MR. PRESIDENT AND GENTLEMEN,—I thank you for the honour you have conferred upon me in inviting me to give these lectures.

In seeking for a suitable subject, I considered the type of lecture usually given before you, and I found that most of your lectures deal with observations made in laboratories, or drawn from hospital experiences, and rarely, if ever, deal with practical observations derived from general practice. It is now many years since it was forced upon me that the study of disease and its treatment would never be satisfactorily accomplished until the general practitioner took his share in the work of research. Hitherto his position in the rank of investigators has not been appreciated, and if he has had no actual discouragement, his attempts have been too often received with a chilling indifference. The need for his help will be realized if we but reflect upon our imperfect knowledge of the course of many chronic diseases, where neither the inception nor the different phases of the progress are understood. Usual exponents of medical science are not brought into intimate contact with the varying manifestations of disease. The trivial ailments by which the beginning of the diseases are often made manifest are lost to them. The subtle changes that go on as the disease advances are usually missed, and the links between the stages are too often based on inference alone. When such a process takes the place of observation in the study of disease, it may be taken for granted that the result will be entirely unsatisfactory. On the other hand, the general practitioner has the opportunity of seeing all the changes as they proceed and the behaviour of the individual under all sorts of conditions. Were he helped and encouraged, his assistance would be found invaluable. But it needs a patience and a perseverance that is called for in no other line of investigation, for he may have to watch individuals for decades for the solution of a problem.

I have therefore chosen my subject with the twofold object of demonstrating, first, the need for observation, such as the general practitioner alone can undertake; and, secondly, the results that have been obtained by such a line of observation. I feel, however, that an apology is needed for the imperfection of the observations I propose to place before you. When I began these observations it was not with any expectation that they would yield results of much value, and it was only as time went on that the importance of the investigations dawned upon me. Imperfect as they are, I am not without hope that they may throw some light on disease processes, and justify the views I have expressed as to the line of observations I have mentioned.

If an attempt be made to obtain some definite conception of the present-day aspect of heart failure and the significance of symptoms, no account of sufficient precision is to be obtained from the study of any textbook. The subject is of so much importance and touches the members of the profession so closely and at so many points that it is a matter for marvel that writers have not realized the necessity for formulating their ideas in language that the student or reader can appreciate. The reason for this absence of definition is probably because most writers have not had the opportunity of watching the development of disease in individual cases for long periods of time. They have devoted themselves mainly to describing the details of the numerous features by which the circulatory system is made manifest to us. As these features vary in character, those that most impress the observer's senses have been elevated above their fellows, and an undue significance attached to them. For this reason, phenomena that appeal to the sense of hearing are considered to be the chief manifestations of disease, and we find that the majority of diseases of the heart are described according to the auscultatory phenomena associated with them. In thus accentuating the importance of limited lesions, the appreciation of the heart's action as a whole has been lost sight of, with the result that the real significance of symptoms has never been fully appreciated, while the study of heart affections from the point of view of isolated disease has actually led to a misinterpretation of the meaning of many of the most obvious phenomena.

It seemed, therefore, not inappropriate that I should take the opportunity of presenting to you a view of heart failure which I have employed for many years, and which in the vast majority of cases has given me a satisfactory basis on which to determine the value of phenomena, even when I had a very imperfect notion of the manner of their production.

Before elaborating the manner in which I seek to estimate the degree of heart failure and the significance of symptoms, I think it necessary to demonstrate the need for such a procedure, following in this respect the method of theologians, who teach that, before a sinner is fit for repentance, he must be brought to an appreciation of his own shortcomings.

The Popular Conception of Heart Failure.

Let us consider how the average medical practitioner acquires his ideas of heart failure. A young fellow has passed all his examinations, and may have had some hospital experience as a house-physician. He passes into general practice, and is surprised to find that diseases present very different aspects from what he expected. During his hospital experience he has seen many patients seriously ill from heart failure. In some murmurs have been detected, and the valve lesions have been regarded as the cause of the heart failure. The patients have died, and the diagnoses have been verified, for the suspected valves have been found thick and shrunken, and the cause of death has been duly certified as disease of the valves. The manner in which heart failure had been brought about has been explained to him: the systolic murmur indicated incompetence of the mitral valve, the leak from the left ventricle had distended and embarrassed the left auricle, stasis in the lungs, with subsequent embarrassment of the right ventricle had been produced, and this, again, had been followed by dilatation of the right ventricle, with consequent tricuspid regurgitation, irregularity of the heart's action, embarrassment and dilatation of the right auricle, back pressure into the veins, followed by dropsy and enlargement of the liver. This view presented such a simple and intelligible explanation that he never dreamt of calling it into question.

With this belief in the mechanical production of heart failure, we can readily understand how the practitioner came to estimate the significance of a mitral systolic murmur. The heart failure is sometimes divided into stages, more or less corresponding to certain evidences, which are taken to indicate stages in the gradual process of heart failure by backward pressure. Consequently any given case is placed in a definite stage, according to the presence or absence of certain phenomena. Even a person who is in perfect health, when a murmur is detected, is looked upon as being in the first stage, with what is called "good compensation." That is to say, the individual is considered to have a valve defect, and that defect indicates disease, or at least impairment of the functional activity of the heart, and it is but a matter of time when the heart will no longer be able to maintain the circulation, and heart failure is bound to follow.

He has also been taught that a heart to be normal must be regular in its action, so every form of irregularity is looked upon as a form of disease. As time goes on he finds murmurs and irregularities at all ages, in the young, in the middle-aged, and in the old. He detects them in people in the enjoyment of good health. He frightens many with his evil prognostications, he forbids the young to play games, he rejects people for life insurance. As

years pass, for one case where his prognosis has come true there are dozens who have falsified it. He seeks more light, and turns to the writings of authorities. He wants to know the significance of irregularities. His own ideas are confused, and the numerous authorities but add to his bewilderment. Many carefully avoid all reference to the subject, others speak with mingled courage and fear—irregularities may be of little significance, but on the other hand, they may be grave—in certain cases they are of no importance, in others they are of serious importance. But how to distinguish the serious from the harmless he can find no answer. It is the same in regard to murmurs. His experience has shown that many individuals in whom he detects murmurs do not suffer from heart failure. Again, authorities are silent on the differentiation of the serious from the harmless, and although most writers recognize that there are differences of significance, yet practically all agree that murmurs are evidence of impairment, if not disease, and no clear definition can be gleaned of the real significance.

The views I have put forth represent broadly the manner in which heart failure is viewed by the practitioner, and when we come to the higher authorities we get little further satisfaction. It is a matter of everyday experience to find cases judged and treated, because of some supposed abnormality, as a murmur, an irregularity, or an increase in the size of the heart. I fully acknowledge that many physicians do recognize differences in the significance, and do give valuable and trustworthy opinions. But when we inquire upon what grounds this differentiation is based they fail to produce evidence sufficiently tangible for practical use, and I do not think I am overstating the case if I assert that to-day many leading authorities would admit that a murmur or an irregularity or an increase in the size of the heart, singly or altogether, implies impairment if not disease.

Origin of the Conception of Heart Failure.

In order that the profession may appreciate the position held in regard to heart failure and the significance of such symptoms as murmurs or irregularities, it will be profitable to inquire into the origin of some of our most cherished beliefs. If we would really seek to find the true reason for many accepted beliefs, we must first consider those who propound them. For that purpose it is necessary to consider the mental attributes of the physician himself. It is a characteristic of the human mind, seen in primitive man, in the child, and in the scientist, to attribute to malign influences phenomena which are obscure in origin and which are assumed to be unnatural.

Our profession is not immune from this trait of seeing evil in the unknown. It is the cause of many gloomy forecasts. The real nature of heart failure not being understood, and experience showing that death occurs unexpectedly, signs or symptoms which are considered abnormal, and whose nature is not known, are viewed with suspicion or as portents of evil. So general is this tendency to imagine evil in the unknown that I am continually seeing members of our profession who are apprehensive because in themselves or their patients some supposed abnormality has been observed in the heart's action. I also see a large number of people who are handicapped in their life's work, subjected to long periods of treatment, and made readily apprehensive because of this tendency to see evil in that which is not understood.

To obtain a just appreciation of the significance of any symptom it is simply necessary to seek out its cause and its bearing on the heart's efficiency. Before we proceed to inquire as to the significance of such symptoms as murmurs and irregularities, it will be instructive in the first instance to see on what grounds they were assumed to be evidence of cardiac infirmity. Practically in all the present-day teaching their significance is taken for granted. If it be borne in mind that murmurs were practically not recognized till the days of Laënnec, we shall find how this mystery of sound has affected the whole profession. In Laënnec's time murmurs were looked upon as evidence of heart disease. It will be observed that this view was taught and accepted at a time when the cause of murmurs was not understood, and before any physician had observed individuals for a sufficient length of time to acquire the knowledge of what happened. That is to say, before even the most elementary facts were appreciated, a definite decision was accepted, with the result that the views so hastily acquired remain the accepted beliefs of this day. No doubt support of this view was supposed to be found in the fact that patients died from heart failure who had had murmurs during life. Later the identification of specific murmurs with certain diseased valves was supposed to establish this view. The profession, influenced by this very limited experience, has been so impressed with the association of murmurs and heart failure and diseased valves, that the great majority of heart diseases are distinguished by the noise that the heart happens to make, although these noises may have little or no connexion with the heart failure.

The Significance of Murmurs.

I repeat that I am well aware that many physicians do distinguish between murmurs that are functional and organic, and that some regard the former as of little significance. But I want to direct attention to the fact that the outcome of all these attempts to appreciate the nature of murmurs has been to impress the majority of the profession with the idea that murmurs are evidences of an impaired heart; and so strong is the hold that this view has upon the profession that many physicians reject all candidates for appointments or life insurance in whom a murmur is present, and army medical officers unhesitatingly reject all candidates who show a murmur or an irregularity. If you inquire from the latter the reason for this rejection, you will be told that many soldiers break down from valvular disease and irregular hearts. But I may point out that this is not proof, inasmuch as those who have murmurs or irregularities are not admitted into the army, and that those who do break down have never previously been shown to have had these symptoms.

Considering how widespread is this belief among many members of the profession, that functional murmurs may lead to heart failure, it would have been expected that numerous instances would have been published. Strange as it may seem, there is not in all the literature which I have searched the record of a single instance where people with these so-called functional murmurs have suffered from heart failure. What we do come across occasionally is an isolated reference to a case concerning which the writer expresses surprise that an individual in whom a murmur has been detected had falsified entirely the prognosis of the physician.

Seeing that murmurs were considered to be evidences of disease before even the nature of their causation was understood, it is surely time that we sought to estimate them at their real value.

Are Murmurs Necessarily a Sign of Impairment?

What ground is there for supposing that a perfectly normal heart should of necessity be free from murmurs? I have put such a question to many of my colleagues, and the mere suggestion of such an idea has seemed to them absolutely uncalled-for. It is an article of belief so deeply and firmly embedded as to be beyond the province of dispute, but, as a matter of fact, it is based on the assumption that the function of the valves is only to close the orifices. And yet there are no grounds to justify the belief beyond the fact that certain valvular murmurs are associated with conditions that lead to heart failure. But surely it is not logical to reason that because some valve murmurs indicate defects all valve murmurs are therefore signs of defects. The assumption has been made and taken for granted without sufficient evidence. That these orifices and valves have other functions has not yet entered into the imagination of most physicians.

If we consider the function of a healthy heart, we shall realize that a murmur may be quite consistent with perfect health. Let us take into consideration the mechanism of the tricuspid valve, for instance. John Hunter described the tricuspid valve as being barely sufficient to close the tricuspid orifice, and the experiments and clinical observations of Gibson have shown how easy it is to induce tricuspid regurgitation. A well-acting heart possesses the power of altering the size of its chambers in accordance with the calls made in its work, apart altogether from its systole and diastole. This is due to the muscular walls possessing the function of tonicity—a function which enables the heart to alter the size of the chambers in order to accommodate itself to the exigencies

of life. When we consider the extremely varied amount of effort which the heart is called upon to expend, it will be easy to understand that a physiological dilatation may often be called into operation. If, then, the tricuspid valves are barely competent, it is readily understood that a slight degree of physiological dilatation will render them incompetent.

The Function of the Auricles.

Moreover, if we consider the functions of the auricles, we shall find out that they are specially constructed to meet this incompetence. The older physiologists were wont to describe the main function of the auricles as being that of reservoirs, capable of varying their contents to meet the varying circumstances of cardiac activity. This is probably their most important function, for in many cases the work of the heart can be carried on efficiently when the auricles cease to act as contracting chambers, as, for instance, in certain cases of auricular fibrillation, to which I shall allude later.

The Function of Tricuspid Incompetence.

Wilkinson King has shown that this tricuspid incompetence, with the reservoir function of the auricles and great veins, and even of the liver, is a special provision in diving animals, and he described the modified condition in man as the "safety valve function" of the tricuspid valve.

What is the common notion of tricuspid regurgitation? In many textbooks it is looked upon as the beginning of the end. When tricuspid regurgitation sets in, the heart is supposed to have entered on a critical phase of exhaustion. This view is simply the outcome of the back pressure conception of heart failure. Many writers recognize the normal incompetence of the tricuspid valve, but the vast majority of writers do not appreciate the simple mechanism of its production in healthy hearts.

The Harmlessness of Mitral Incompetence.

What I have said of tricuspid incompetence applies also to mitral incompetence. The mechanism by which a functional murmur arises is probably the same. But in the case of the mitral valve we get better evidence of the harmlessness of mitral regurgitation due to damaged valves, from the study of cases with organic changes in the valves, for, as I shall show later, mitral regurgitation can go on for fifty years, with absolutely no crippling of the heart in its work.

Are Irregularities Necessarily a Sign of Impairment?

The same form of inquiry reveals that the significance of irregular action of the heart is misunderstood. On what grounds is it assumed that a heart to be normal must be regular in its action? A historical retrospect will throw little light upon the subject, for from the dim pages of history obscure references to irregular heart action show that it has been regarded as abnormal long before any true idea was acquired of the real causes of its production, and long before it was shown that irregularities were of different kinds, and had widely divergent significance.

Let us consider the irregularity so common in the young, where its presence is often looked upon as a sign of disease or of impairment. We know that the heart is remarkably sensitive to nerve influences. In certain individuals the respiratory movements, by stimulating the vagus nerve, produce a transient slowing of the pulse, and this may be so marked that a recognizable form of irregularity may arise from this cause alone. This irregularity occurs most markedly in the young, and mainly, if not entirely, in those with a perfectly healthy heart muscle. Any cause that irritates or excites the heart muscle, as fever, excitement or effort, at once abolishes the irregularity. So marked are these causes in abolishing the irregularity that I have for some years looked upon the presence of the irregularity as a possible evidence of the integrity of the heart muscle, and so far from considering it an evidence of disease or of infirmity, it may, within certain limits, be considered a positive evidence of a healthy heart.

The Real Test of the Significance of Murmurs and Irregularities.

Although it might be objected that this way of looking upon certain murmurs and irregularities as within normal and physiological limits is purely conjectural, I do not base my argument solely on such grounds. The real test of this reasoning is the practical one of close observation of individuals who have shown these murmurs and irregularities for many years, while they have been exposed to all the exigencies of a strenuous life. This test I have applied in so many cases and watched individuals for so many years that I have no hesitation in saying that the irregularity and murmurs found so frequently in the young are evidence neither of disease nor of infirmity, but are normal phenomena, and, in many cases, are positive evidences of a healthy heart.

I know very well that many physicians recognize the harmlessness of irregularities and murmurs, and are quite prepared to admit the position I have taken up when the matter is the subject of an academical discussion. I have, however, found from practical experience that these phenomena are taken, to all intents and purposes, as abnormal signs when any particular individual presents them. Thus, for instance, a youth at school or college is examined by a physician, and when these phenomena are present the symptoms are looked upon as signs of weakness, if not disease, and treatment is at once directed to their cure, and the youth is forbidden to indulge in those games and pastimes which call for strenuous exertion. Not only have I watched with particular interest individuals with these functional murmurs and irregularities, and have never seen one suffer from heart failure, but what is more significant, I have never seen, in the twenty-eight years I spent in general practice, a single case of heart failure from a functional affection of the kind with which I am dealing. I may point out that my experience has been a very extensive one, and that people whom I have observed have led hard and strenuous lives, so that the condition of life would aggravate any defect that tended to heart failure.

The Harmlessness of Organic Murmurs.

So far I have been dealing with what are described as functional murmurs, and many physicians recognize that these are of less significance than murmurs due to an actual lesion of the valves, and teachers usually describe certain evidences which distinguish an organic from a functional murmur. In order to appreciate better the significance of murmurs, I can cite from my experience cases with mitral disease whom I have watched for twenty to thirty years, and who have never shown the slightest sign of heart failure. From this it will be seen how unjustified is the view that mitral regurgitation is of necessity a serious trouble. The view that the auricles are adaptable reservoirs is supported by such evidence as that of a heart unimpaired by mitral regurgitation which has been going on for fifty years. Take, for instance, cases with a history of rheumatic fever, after which a rough systolic mitral murmur was left, which from its character and history and propagation leaves no doubt as to its being the result of an endocarditis, acquired during the attack of rheumatic fever. What is the significance of this murmur? We may take it for granted that an individual with such a murmur would be rejected for life insurance or made to pay an enhanced premium, while for all occupations, as the army or navy, he would be unhesitatingly rejected. Yet I have observed such patients pass into middle life and old age, some of them leading strenuous lives, and have never shown the slightest sign of heart failure.

The Harmlessness of Organic Irregularities.

Irregular action of the heart is in the same unsatisfactory position. Though irregularity in the human heart is a phenomenon of the greatest frequency from youth to old age, few writers attempt to deal with the subject in such a manner as to enable the reader to understand their position. They either ignore the subject (and you may find textbooks of considerable size where the subject receives at the most only an incidental reference), or they deal with the subject in such an indefinite manner that no clear idea of their position can be ascertained. On the other hand, when we come into everyday dealings with the subject, we find that irregular action of the heart is looked upon by our profession as an evidence of serious heart impairment. From middle age onwards, sometimes before, there appears in most people an irregular action of the heart of a very characteristic form. This is due to the

auricle or ventricle contracting prematurely. The contractions are often so small as not to be perceptible in the pulse, which is then spoken of as being intermittent.

As a matter of fact, after watching individuals for long period of years, I can say that the great majority of those people are in no danger, the irregularity is of no grave significance, and treatment is unnecessary. In certain grave conditions its presence may be one of several symptoms, and in such instances it is difficult to tell whether the condition producing it is related to the cause of the heart failure, and in such cases the physician must base his opinion on a study of all the symptoms. There are indeed certain irregularities which are evidence of grave exhaustion, but there are other signs by which we can appreciate the gravity of the case.

The Back Pressure Theory of Heart Failure.

I have already referred to the notion that heart failure with valvular incompetence or disease is due to the gradual increase of pressure in the lungs and in the chambers behind the incompetent valves. Practically the whole conception of the significance of regurgitant murmurs has been based on this conception of back pressure. In order to get a clear idea of the unsatisfactory basis on which the present day conception of heart failure rests, it is necessary to look a little more closely into this accepted doctrine.

I have failed in my endeavours to trace the origin of this notion, but have come across it evidently in full acceptation in Bellingham's *Diseases of the Heart*, published in 1857. At the period when it was accepted the meaning of the signs on which it was based were imperfectly understood. Like all theories based upon the application of mechanical laws to vital phenomena, there is some truth in it, but like all such theories, it leaves out of consideration so many factors as to render it in the main untrue. Considering the assurance with which this view is taught it might be assumed that abundant evidence was forthcoming for its support. We do, indeed, get many realistic diagrams, illustrating imaginary changes in the circulation, but there is a sad lack of trustworthy detail. I may say that I have failed to find in literature the record of a single case giving evidence sufficient to justify this explanation. Moreover, I have seen cases with their first attack of endocarditis; I have patiently followed their subsequent progress, and have seen heart failure and death ensue, but never in my experience have I seen one case which followed the course supposed to be characteristic of heart failure from back pressure. Although back pressure may be present, and may modify the symptoms of the heart failure, the back pressure is never the essential cause of the heart failure.

The Essential Causes of Heart Failure.

When we watch cases with heart lesions, associated with mitral disease, which ultimately lead to heart failure, we shall find symptoms arise which, if properly appreciated, give us a clue to the essential cause of heart failure. We may find, for instance, the character of the murmur changing, and the appearance of new murmurs as the years go on. This indicates that the lesion producing the murmur is not stationary, and that there are slow insidious changes going on in the heart. Now these changes are never limited to the endocardium or the valves, but invariably involve the heart muscle. When it is borne in mind that the whole efficiency of the circulation depends upon the integrity of the heart muscle it will be seen how important it is to appreciate these myocardial changes. I shall in my next lecture point out that the essential cause of heart failure is due to the changes in the heart muscle, which, by impairing its contractile force, render it unable to maintain the circulation. The valve defect which is revealed by the murmur is, as a rule, a mere embarrassment to the heart in its work. Moreover, there are many fatal forms of heart failure in which the valves are perfectly competent till the end. It must be further understood that the coincident changes in the muscle, which lead to heart failure, are not limited to one chamber, but may affect all the chambers of the heart.

Not only does this view of back pressure overlook the real source of the heart's inefficiency, but it has misinterpreted the most significant change in the heart's action, a change which induces or precipitates those signs of heart failure which are looked upon as characteristic of back pressure. It is frequently recognized that, accompanying such signs of heart failure as dropsy or orthopnœa, the rhythm of the heart has become irregular. The symptom is worked into the back pressure theory as being due to the distension of the auricles. As a matter of fact, the onset of the irregularity precedes the heart failure in a large proportion of cases, and is itself a sign of a change which has taken place in the heart's action, which at once embarrasses the heart in its work, and leads directly to extreme heart failure. This change is due to the auricles passing into a state of fibrillation, a condition which alters the whole aspect of the mechanism of heart failure.

Auricular Fibrillation.

In order to obtain a better view of extreme heart failure, and in order to call attention to probably the greatest discovery of practical importance that has yet been made in the domain of the clinical pathology of the heart, I will briefly describe some of the features of the condition, which we now recognize to be due to fibrillation of the auricle. I think it all the more necessary to deal with this matter, because even yet many observers who detect the cause of the altered rhythm of the heart are not aware of its immense importance. The recognition of this condition and the phenomena accompanying its onset presents the subject of the most common form of heart failure in an entirely new light, and affords grounds on which a sound prognosis and a rational therapy can be based, in many obscure cases. The response of hearts affected with auricular fibrillation to remedies differs so much from the response of hearts with the normal rhythm, that its recognition throws a light upon the action of cardiac remedies which modifies the whole conception of cardiac therapy.

Definition of Auricular Fibrillation.

Within the last few years the attention of those engaged in the study of the heart's action has been directed to a condition of which little has hitherto been known. Physiologists have long recognized that under certain obscure circumstances the muscular fibres of the heart muscle, in place of contracting in a normal and orderly fashion, could be put into a state where the individual fibres or small bundles of fibres contract, rapidly, and apparently independent of each other, so that the chambers cease to contract as a whole but stand still, while all their fibres are in incessant movement. The result of these fibrillary contractions is at once to suspend the contractile function of the chambers affected. When the ventricles pass into a state of fibrillation death ensues, and MacWilliam suggests that this is, in all probability, the cause of sudden death in the human subject. When the auricles pass into fibrillation death does not ensue, for the fibrillation cannot pass along the bundle which connects the auricles with the ventricles. But what does happen is that the stimuli for contraction are rapidly and irregularly thrown upon the bundle by the fibrillating auricles; and if the bundle is able to transmit the stimuli, and the ventricles able to receive them, the ventricles are stimulated in a rapid and irregular manner. In some cases we find the onset of auricular fibrillation accompanied by a rapid and irregular pulse, in others by one of moderate rate or even slower than the normal, but almost invariably irregular. This variation in rate depends upon the susceptibility of the auriculo-ventricular bundle or of the ventricle to stimuli—a point of the greatest importance when treatment has to be considered.

Pathological Changes Inducing or Associated with Auricular Fibrillation.

The cases in which fibrillation is most frequently found are those with a previous history of rheumatic fever, or in elderly people. The pathological changes found in the heart which seem to bear upon this question are an increase of fibrous tissue and of nucleated cells in the walls of the auricles. There are also in many cases calcareous changes in the arteries. Accompanying these changes in the auricle are similar, and sometimes more extreme, changes in the muscle walls of the ventricles, and it is very probable that the degrees of heart failure that follow the onset of auricular fibrillation are dependent on the extent of these changes in the ventricular muscle.

Frequency of the Occurrence of Auricular Fibrillation.

This condition, as I have already remarked, is of great importance when we come to deal with cases of heart failure. I have observed nearly a thousand cases, and watched a large number for many years. About 70 per cent. of the cases of severe heart failure met with in general practice, with dyspnœa and dropsy, owe the onset of heart failure to this condition. There are, of course, underlying conditions of the heart muscle which lead up to it, and so far as the future of the patient is concerned, it depends upon the degree of impairment of the heart muscle. In addition to cases of severe heart failure, auricular fibrillation is frequently met with in people with heart failure of varying degrees, in some with little or no impairment of the heart's efficiency, in others with long and persistent enfeeblement.

Auricular Fibrillation and Heart Failure.

Although I was at a loss to account satisfactorily for the mode of production of the phenomena produced by what I now know as auricular fibrillation, I had recognized twenty years ago that the group of symptoms in these patients indicated a very definite condition, which I described in my writings first as paralysis of the auricle, and later as nodal rhythm. I had therefore little difficulty in recognizing the condition when it arose. By keeping in touch with my patients I had observed cases when the fibrillation started and watched their progress. In many I found that the onset of heart failure was directly due to the fibrillation. Some of them have drifted and died, irresponsive to all treatment, within a few weeks or a few months. Others have responded to treatment, and led useful lives for many years, while others have maintained but a crippled existence. Some, on the other hand, have been very little affected, and have led energetic lives with little or no treatment. In order to be able to give a reasonable opinion as to the prospects of these cases, I have carefully observed the phenomena which distinguished those who fared badly from those who have been but little affected, and by this means I have obtained an estimation of the value of some of the phenomena and their bearing on heart failure, which I will describe in my next lecture.

Auricular Fibrillation and the Back Pressure Theory.

It is necessary to recognize that auricular fibrillation is not the outcome of back pressure, inasmuch as I have seen it repeatedly in individuals in whom there were no signs of cardiac enfeeblement, even after its inception. In many cases its inception was at once followed by the first symptom of heart failure. Why this should happen will be understood when it is recognized that the four chambers of the heart are simultaneously thrown into abnormal action. The auricles are standing still, so that the heart loses what benefit is obtained by the orderly contraction of these chambers. In the cases that do badly the ventricles are stimulated to rapid and irregular action. They are not filled in the normal fashion. The periods of rest between the beats are shortened, and are of insufficient length to restore the strength of the heart muscle. The beats therefore are less effective, and with persistence of the rapid rate, exhaustion of the heart muscle sets in, and gradually there supervene all the phenomena which we recognize as characteristic of extreme heart failure. This explanation dealing with a certain class is borne out in many ways, but I refer to it here in order to show that heart failure in these cases does not follow the route mapped out in the scheme of back pressure, but that all four chambers are at once rendered inefficient.

The Inadequacy of the Back Pressure Theory to Explain Heart Failure.

To sum up, the theory of heart failure from back pressure lays stress upon and magnifies factors of little importance and ignores entirely the essential factors in the production of heart failure. The back pressure theory leaves out of consideration the fact that the valve lesion may be a steadily progressive one, and it omits the still more important fact that there are coincident changes going on in the structure of the heart muscle, impairing its efficiency, and leading up to the essential cause of heart failure. But most important of all, this back pressure theory has failed to recognize that the changes which have led directly to the production of heart failure and produced such symptoms as dyspnœa, dropsy, enlargement of the liver, are due to the sudden inception of a different rhythm in the heart's contraction by fibrillation of the auricle.

The main object I have had in this lecture was to show that the accepted view of heart failure has been based upon a misconception of the means by which it has been brought about, and that certain phenomena associated with heart failure had attributed to them, in consequence of this association, a significance which they do not possess. To obtain a just estimate of their significance, and a clear idea of what is really the essential nature of heart failure, is the subject to which I propose to devote myself in my next lecture.

An Address

ON

ANTIVIVISECTIONISTS AND THE RESEARCH DEFENCE SOCIETY.*

BY

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MR. CHAIRMAN, LADIES, AND GENTLEMEN,—I have thought that it might be of interest to this society to put before it the views which have been propounded by the antivivisectionists, seeing that it is the object of our society to combat those views. In order to obtain them we need look no further than the five volumes which have been already issued in the reports of the Commission on the Act which is known as the Cruelty to Animals Act, 39 and 40 Vict., cap. 77. I am not going to burden you with many details upon this subject, but in order that you should understand the kind of views which are held by our opponents I have culled a few excerpts from the statements of representatives who were sent up to give evidence before the Commission on behalf of their societies.

Place aux dames. One lady, an authoress and theosophist, appeared as the representative of a society calling itself the Parliamentary Association for the Abolition of Vivisection. She began by stating that the practice of vivisection causes great moral and ethical deterioration of the race which far outweighs any conceivable value. She then proceeded, on being questioned with regard to this extraordinary statement, to admit that she had no evidence in support of such deterioration, but that in her opinion animal experimentation was not justifiable, even if 20,000 lives a year could be saved by it. That, for example, in India, where 20,000 people a year are killed by snake-bites, if a method could be devised which involved experiments on animals, and which would prevent these deaths, it would not be justifiable to employ it. She further admitted that, in her opinion, it is not justifiable to inoculate a guinea-pig with milk in order to determine whether the milk is deleterious to infants—whether it is capable of communicating tubercle or other disease to them. This lady objects to any exploitation of animals. She was not asked the question, but I have no doubt that, quite consistently, she would object to the miner taking a mouse with him into the pit in order to see if the air which he was to breathe was respirable or irrespirable, or of a sparrow being lowered into a well in order to see if a man could live in that well or not.

Another lady, also an authoress, who came as a representative of the same association, objected to animals being even treated by inoculation to prevent illness. She thinks this should be left to Nature; if Nature chooses to kill an animal by a particular illness, then let it die. This is not a sentiment which would appeal to farmers, who know that by certain inoculations they can save their animals in times of epidemic, but it is, at any rate, consistent. She does not deny the possibility of prevention or cure,

*Delivered at the annual meeting of the Dublin Branch of the Research Defence Society, held on March 24th.

but would not avail herself of it. There is another class of antivivisectors who are not prepared to say that we are not to accept benefits which can be obtained from experiments upon animals, but, in order to get over the difficulty they would be placed in by such acquiescence, they refuse to admit that any benefit has ever been discovered, or that any utility has ever come out of experimentation; they refuse to believe that animals can be immunized from such a disorder as rinderpest, or that diseases can be diagnosed by injections of such substances as tuberculin or mallein. They reject demonstrable facts.

Other persons who came on behalf of the antivivisection societies made the wildest of statements. One gentleman informed the Commission that hundreds of thousands of dogs had been used for experiments in order to determine the functions of the brain. This is obviously a ridiculous exaggeration. I do not suppose that a hundred animals have been used for this determination. At any rate, to talk of hundreds of thousands of dogs being sacrificed for the purpose is sheer nonsense. Yet it is made explicitly before a Royal Commission, and appears in black and white, and such a statement is quite likely to be taken up by antivivisectionists and published as if it were an actual fact. But this gentleman is not satisfied with the result of such experiments. Assuming hundreds of thousands of dogs were sacrificed—he says that the result of this is that only 33 per cent. of the cases operated on in man recover. Supposing one-third of the cases operated on recover, what would we not sacrifice in animal life in order to obtain such a result? As a matter of fact, the sacrifice was small, and the experiments were in no case painful, for it is well known that the brain is itself insensitive. But this is not stated; the fact is carefully omitted.

Another gentleman, who appeared on behalf of the Church Antivivisection Society, whatever that may be, was for total abolition of experiments on animals, and was so far consistent that he would also put down the killing of animals for sport. He admitted that he eats meat, and that it is inconsistent of him to do so, and a similar admission was made by one of the ladies that I have quoted from. She stated that she had tried to be a vegetarian, but that the discomfort was so great that she had to give up the attempt.

While there is one kind of antivivisector who is fairly consistent, there is another who is quite inconsistent. The only operations on animals that he will endeavour to prevent are those which will advance knowledge, or be beneficial to mankind, or to animals themselves. The first—the consistent antivivisector—desires total abolition, on the ground that mankind has no right to take animal life in order to exploit animals for his own purposes. All such persons should be vegetarians. They should not wear boots or shoes made of leather, they ought not to be driven by horses, they ought not to drink the milk of cows, they should in no way countenance the use of animals for the benefit of mankind. Some of them even go so far as to say that this would be a right course to pursue. The other kind of antivisector is more sensible if less sensitive. While contending that mankind has no right to use animals for the purpose of acquiring knowledge, whether the knowledge is useful to man or not, he claims the right to use animals, to operate upon them, to slaughter them, for his own subsistence, or for commercial purposes, or to promote his pleasure or comfort. Now most persons—most uneducated persons at any rate—are profoundly ignorant of the methods of treating young animals that are destined for food and for other purposes; they are unaware that every year in this kingdom millions of such animals, both male and female, are painfully mutilated without antiseptics or anaesthetics, that millions of lambs, for commercial purposes, have their tails removed without these precautions to prevent suffering, that millions of sheep and pigs are slaughtered in a painful manner, in order that their meat may be more white or more tender than it otherwise would be. They ignore the fact that millions of harmless and defenceless creatures are sacrificed every year for sport, the pleasure which this yields being measured by the sacrifice of animal life involved. The relative painlessness of scientific experiments on animals counts for nothing. Such experiments may be merely for the purpose of advancing knowledge, and this suffices to condemn them.

As I have already stated, many antivivisectionists deny that any benefits are obtained from animal experiments, or that knowledge has been advanced by these experiments, or that the suffering of mankind and of animals has been in any way alleviated by them. It is not possible to argue with the wilful ignorance which statements like these involve. We medical men and physiologists know that there is no single fact of importance in the whole history of medicine that has not been either discovered or elucidated by the experimental method. Without this method no advance is possible in medicine or surgery, for these are founded on physiology and pathology, and both of these are essentially experimental sciences. It is true that Nature occasionally makes experiments on man, but until such experiments have been controlled by others on animals their interpretation is always difficult, and sometimes impossible. You might as well expect chemistry or physics to advance without experiment as medicine or surgery. Many of the results of these experiments are still incomplete, but from others important results have already been obtained. Certain diseases of both man and animals have been almost eliminated, and others have been reduced to relatively small proportions, or are, at any rate, capable of being brought under control, so as no longer to present the formidable aspect they presented to our ancestors. It is sufficient to mention such diseases in man as smallpox, diphtheria, malaria, yellow fever, and Malta fever; in animals as anthrax, rinderpest, pleuro-pneumonia, tetanus, hydrophobia, and swine erysipelas. The whole system of modern surgery also depends on experiments. When I was a medical student, forty years ago, there were many parts of the body that it was impossible to operate on. Even the simplest of wounds was liable to become infected, and the so-called "surgical fever" claimed each year a holocaust of victims. Now there is no part of the body which the surgeon cannot explore with impunity, simply on account of the development of the Listerian method, which was founded on the experiments of the immortal Pasteur, and on those of the great Lister himself. I need say nothing about the treatment of wounds in war. In our latest war we saw how recovery could be obtained from wounds which in former days it was hardly possible to treat—quite impossible to expect recovery from.

I have spoken of the two classes of antivivisectors as the consistent ones, and the inconsistent ones. The consistent antivivisectors are, I admit, almost worthy of sympathy. At any rate they, in their evidence, have admitted profound ignorance of many of the facts that I have put before you regarding sufferings inflicted on animals which are exploited for human convenience, and several expressed their detestation of such exploitation, especially when it is for human pleasure.

But the other antivivisectionists are the more dangerous opponents of progress. They profess that they are unable to sleep sometimes for thinking of the sufferings inflicted on animals in experiments planned for the advancement of knowledge, or with a view of alleviating human pain, but yet are willing to condone the destruction of thousands of innocent lives for the pure pleasure of killing. They are well aware that there is more suffering and slaughter inflicted in a single day's sport organized by one of their wealthy patrons than is inflicted during a year in all the laboratories in the United Kingdom. I can put myself in the position of a consistent antivivisectionist. I can assume that I am ignorant of what is done to animals for the sake of profit or the sake of sport. I can sympathize with his feelings, and imagine the horror he experiences when he reads an account of operations which he is told and believes are daily and hourly performed upon animals which he is informed are not anaesthetized, a statement he is strangely anxious to believe. He is even smitten with horror at experiments in which no operation is performed. Some of you may remember, a year or two ago, a question being addressed to Mr. Herbert Gladstone, when he was Home Secretary, about a terrible experiment made by Dr. Waller, of the London University, on a dog, and that Mr. Gladstone, at Dr. Waller's invitation, went to see this experiment. The dog is well known in London. It accompanies Dr. Waller in his car, and is known as "Jim," and although a bulldog, is a perfectly innocuous animal. Mr. Gladstone found that the experiment con-

sisted in the dog being trained to stand with its paws in saucers of water to which a little common salt was added. The saucers were connected with a wire which passed round r magnet, and by this means the several phases of action of the dog's heart were exhibited. By experiments of precisely the same nature it is possible to diagnose cases of heart disease in man which it would not be possible to diagnose accurately by other means. Of course it is not a painful experiment. The accusation was ridiculous, and Mr. Gladstone himself held it up to ridicule by saying that the amount of suffering which the dog sustained could be best appreciated by his questioner if he had ever paddled in the sea. He was taken severely to task for treating a serious subject in so frivolous a manner. This is an instance of misinterpretation, the result of entire ignorance of science. These people hear of such things as galvanometers, and imagine them to be instruments of physical torture. They believe all the stories that they are told by the professional agitators. If they honestly think that mankind has no moral right to inflict any suffering on the lower creation for his own benefit, one can honour them for that opinion while pitying the credulity that is willing to accept such testimony as is furnished to them by the agitator. Indeed, the evidence that the average antivivisector is willing to accept is incredible to a well-balanced mind.

But one can have no manner of sympathy with the antivivisector who will not lift his little finger to prevent the vast amount of animal suffering that he well knows is perpetrated every year to afford mankind pleasure or profit, and yet agitates against the comparatively small number of experiments performed on animals not for the purpose of inflicting pain, not for pleasure or for profit, but for the advancement of knowledge, and for the benefit both of mankind and of animals themselves. For such antivivisectors as these no word of contempt is too scathing. Hypocrisy and cant are written large over all their proceedings. Some of them pretend that they do not wish for the total abolition of vivisection, but are willing that it should be performed under what they are pleased to consider proper safeguards, and the proper safeguard which they suggest is that at every experiment an inspector should be present. This is so obviously impossible that it would amount to aqolition. It is like the adoption of a regulation ordering that an inspector should travel with every motor car in order to see that the speed limit shall not be exceeded. This very illustration was brought forward by Mr. Stephen Coleridge, who contended that because motorists, like himself, are constantly breaking the law, and would not hesitate to deny such infringement if challenged by a police constable, physiologists would be equally ready to infringe the regulations of the Act, especially those regarding anaesthetics, and would also deny that they had ever done so. I confess I draw the line at Mr. Coleridge endeavouring to place us upon the ethical level which he is satisfied to occupy himself.

Before going further, it may be well to explain what kinds of experiments are performed upon animals, because there are many people who do not understand the differences between them. There are two kinds of physiological experiments. One is conducted from first to last under anaesthesia. The animal is never allowed to recover. Before being placed on the operating table it is completely anaesthetized. Such an animal from first to last can feel nothing. There is no pain in such an experiment, and no sensible person—admitting that valuable results can be got from such experiments—no sensiqle person, however humanitarian, can possibly object to them. The mode of death is less painful than that to which stray dogs are ordinarily put. I believe that about 20,000 such dogs are sacrificed in London alone every year. They are put into what is known as a lethal chamber. This sounds not unpleasant, but none of us would care to be put into it, for it is only another name for a suffocation chamber. Suffocation is probably not a very painful mope of death, but most people would think it so, and if they were told that for scientific purposes 20,000 dogs were suffocated every year, there would be a thrill of horror through the land. It was the custom in Edinburgh, and perhaps is still the custom in other places, to drown stray dogs. Drowning is another form of suffocation, and is not attended with much pain, but if a physiologist drowns c few dogs for the purpose of discovering an improved method of resuscitating drowned persons he is held up to opprobrium as an embodiment of cruelty. And this, even if his drowning is done under full anaesthesia.

In the second kind of physiological experiment the operation is performed under an anaesthetic, just as in the case of a hospital patient. The animal is allowed to recover from the anaesthetic, and the after-treatment is carried out as carefully as would be done in the case of a human being under the treatment of a surgeon. The wound is dressed in the same way with aseptic or antiseptic dressings; and everybody knows that a wound which is aseptic is painless. All these operations are practically painless operations. The Act orders that if after such an operation the animal should show signs of pain it is immediately to be killed by chloroform. Nothing could be more merciful than this. If we assume, as we know to be the case, that important results accrue directly to physiology and pathology, and indirectly to surgery and medicine, from these experiments, we are bound to affirm that we have a moral and ethical right to perform them.

The object of the first kind of experiment is to discover more immediately the functions of the organs to be investigated (this can often be discovered even while the animal is completely under an anaesthetic) and to determine if the organ acts under the influence of nerve fibres, or if it acts independently of nerves. For this purpose it might be necessary to stimulate a nerve. The nerve may or may not be a sensory nerve, but its stimulation would produce no sensory effect on an animal which is not capable of sensation. Yet such experiments are quoted in the evidence before the Commission as experiments of a highly painful character. This arises, of course, from sheer ignorance on the part of those who gave the evidence.

The object of the second class of physiological experiment is to determine what happens when an organ is injured or removed. Most important results have been obtained in this way. It is the only way in which the functions of certain parts of the brain can be discovered, and in which you can find out the functions of the internally secreting glands. No one supposed that certain small organs found in deep parts of the body had any functions at all until physiologists removed them—such organs, for example, as the suprarenal capsules, small bodies about the size of the end of one's thumb; but these are essential to life, and it has been found that if they are removed the animals soon die. It is also known that if they are destroyed by disease in man death results. Quite recently from experiments upon animals it has been discovered that the toxins generated in certain diseases render these glands functionless, and in all probability the fatal result of the disease is due to this loss of function. This is an obvious step towards curing the disease, for if death results from loss of function in these glands, we must try to find out how we can prevent or compensate for that loss, and thus avert a fatal result.

A third kind of experiment consists of those which are employed to test the action of drugs. The action of drugs ought always to be tested first on animals. Supposing a new drug were discovered as potent as snake poison, the one-thousandth part of a grain of which might be fatal, it would not be safe to test such a drug, even in the minutest amount, on man. It also is necessary to test drugs on animals, because there are certain effects of drugs that we cannot see in man. You may require to see the effects which they produce on internal organs. Take, for instance, drugs that act on the liver. All practitioners in the days when I was a student knew of a number of drugs that act on the liver. If there was anything wrong with you which they otherwise failed to diagnose "your liver was out of order." They gave you some drug which as they supposed would act on the liver and promote a flow of bile. When these drugs came to be tested by experiments on animals, no one of them was found to have any action on the liver at all!

There is yet a fourth kind of experiment, which is not physiological or pharmacological, but pathological, and these experiments constitute the bulk of those that are actually performed. The operation consists in the first instance of a mere puncture in the skin, which may or may not inoculate the animal with disease. The object of the inoculation is usually to ascertain if the germs of the disease are present in a particular fluid, or for the

diagnosis of a disease in man or animals. After the disease is communicated there may be some pain, although the pain that animals suffer in disease cannot be the same that mankind suffers. And there is this difference between experiments of this kind and those which Nature performs—that in the case of experimental animals, when the pathologist has found that the disease germs are present, and that the disease is beginning to show itself, all that he then has to do is to kill the animal under chloroform. The animal is not allowed to suffer prolonged pain. There may be a few cases in which it is imperative that death should be allowed to result from the disease in order that it may be seen more exactly what organs are affected, but such an animal does not suffer more than animals which are naturally infected by the disease under investigation—usually less.

To apply the word "cruelty" to such experiments as I have described is a gross abuse of the term. Cruelty is the wanton infliction of pain. No one thinks of a surgical operation as cruel; no one considers the dentist cruel if he inflicts pain in the extraction of a tooth. In animal experiments, as in surgical cases, every precaution is taken to avoid unnecessary pain. The difference is this, that the one operation is performed for the sake of an individual patient, whereas the other is undertaken with the object of advancing human knowledge; one is for the benefit of the individual, the other for the benefit of the race.

Lastly, there is another kind of operation, performed for a different purpose. These are the experiments made in order to produce preventive or curative serums. Such experiments are initially performed in order to obtain a knowledge of the methods of producing immunizing bodies. After this preliminary knowledge is gained, similar operations are performed, not with a scientific object, but in order to obtain the curative material. These operations come under a commercial heading, and the serums so prepared are largely used in medicine and surgery to cure or prevent disease, and by agriculturists to prevent the spread of epidemics in their animals; they are, in fact, equivalent to manufactured commercial drugs. The amount of suffering which is caused by this manufacture is infinitesimal. The animals are inoculated in such a way that the symptoms of the disease are hardly apparent. Horses are mostly used for the purpose. The blood is drawn in such a manner that the horse may be quietly munching oats in his manger, and does not wince while blood is being drawn for the object of obtaining serum from it. The pain of blood-letting is, in fact, far less than that to which the animal has been subjected by the application of the whip and spur. Even if the pain were greater, I contend that we should be justified in procuring a material which is so necessary for the treatment or prevention of disease in man and animals. The time may come when chemists will be able to make these substances in their laboratories, and we shall not be required to call upon animals to supply them, but until that day arrives it is necessary that they should be got in the manner which Nature herself provides.

As to the exploitation of animals for food or for drawing our carriages, no sane person contends that it is unjustifiable. It is true that some persons are prepared to go to amazing lengths in this matter. One witness for the abolitionists would not draw the line even at mosquitos; and I am not sure that if these people understood there was no essential difference between animal and vegetable life they would not shudder at the idea of boiling a cabbage or frying a potato alive. But for those who are prepared to admit that animals may be used for the benefit of man there can be only one answer to the question whether we are ethically justified in using them to gain such knowledge as may result in assisting us in our battle against disease and death. Physiology is the actual foundation upon which medicine is based, and no advance has ever been made in physiology, no important fact has ever been discovered in it, without animal experimentation. Clinical observation alone can only grope blindly without the guiding light of experiment. Those who profess to practise medicine without the knowledge that has been acquired by such experiments either deceive themselves in ignorance or deceive their patients by misrepresentation. Such doctors are few in number and either antediluvian or obscure. Their views are repudiated by the medical profession. Nevertheless, the opinions of these men are put forward by antivivisectionists as of equal weight with those of the great leaders of medicine and surgery. I believe there are some 36,000 doctors in practice in the United Kingdom. I doubt if 100 of them will be found willing to endorse the antivivisectionist view. It is mainly the ignorant and ill-informed members of the community who support the agitation. It receives little encouragement from the educated classes. But ignorance will always be in the majority, and, unless we take means to dispel it, serious impediments may be imposed on the future progress of medicine. To prevent this is the purpose of the Research Defence Society, and that is why we ask the co-operation of all educated men and women in our efforts to advance the knowledge of the functions of the animal body both in health and in sickness—a knowledge which alone can render it possible to alleviate the sufferings, not only of man, but also of the creatures which are dependent upon him, and of which, in our judgement, he is entitled to make use for his subsistence and comfort.

SOME MEDICO-LEGAL AND PRACTICAL CONSIDERATIONS RELATING TO MELANCHOLIA.

Being the Third Morison Lecture on Insanity, Delivered before the Royal College of Physicians of Edinburgh.

BY

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I.—Healthy and Morbid Depression.

A recognition of the differences between natural and morbid depression, between melancholy and melancholia is very important. Any difficulty that may arise can only be with cases of simple melancholia, for in delusional melancholia even the layman can discern that the mind must be disordered. The problem, therefore, is, How can we distinguish the symptoms of simple emotional or affective melancholia from those of natural melancholy? In the first place, we may not be able to do so by the symptoms themselves, whether mental or physical; they may all simulate analogous phenomena in health. Maudsley has stated that they "caricature" the symptoms of natural melancholy, and that is usually true, but in the most difficult cases the phenomena are not caricatured but simulated with fidelity.

The first evidence we have rests on the fact that melancholia is a departure from the normal mental condition of the patient himself. From a person of equable mind, or even of bright and cheerful disposition, he is more or less suddenly transformed into a being always in a state of gloom or apprehension. While this may not be complete proof of mental ill-health, it is quite sufficient to arouse grave doubts.

In the next place, normal melancholy is a reaction to some event or cause in the environment, such as produces painful feelings in the normal or average person. Melancholia does not arise in relation to anything in the environment; it is a subjective or internal condition due to a disordered function of the brain. In the majority of cases there is no difficulty on this point, because the patient is found wrapped in gloom, and himself informs you that he cannot tell the reason of it. These two tests are usually sufficient to settle any doubts.

In some cases it happens that there is a cause of a painful kind to which the melancholia is attributed, such as the loss of a friend or some business difficulty. In most of these cases there is no difficulty either, as the reaction to this alleged cause is out of all proportion to it either in intensity or duration or in both, and has in reality nothing to do with it except indirectly.

In a very few cases there is a real difficulty when the exciting cause is of a profoundly moving nature, as, for example, in the case of the reaction that occurs when by one false step a man's reputation is hopelessly ruined, or

when he is suffering from the agonies of a fatal disease. In these cases there may be a doubt, and the right course to follow is to suspend the diagnosis and keep the patient under observation.

In these cases help may be received in the diagnosis by seeking for the secondary and associated phenomena which are so rich in melancholia. There is usually hereditary predisposition to insanity in melancholia, there has often been a previous attack, the health is usually run down, and there is loss of weight; insomnia, loss of appetite, and constipation are present, as well as motor, sensory, and intellectual symptoms.

A knowledge of these associated secondary phenomena is also useful where malingering is suspected. I have a patient at present who is suspected of pretending to have simple melancholia. If she complained only of feeling depressed, it would be difficult to decide the point, but her chief complaint is "of bad thoughts which never leave her, and of her brain, which somehow won't work." The presence of these characteristic secondary symptoms confirms my belief in the existence of a fundamental depression. I cannot therefore discharge her on account of the danger of suicide, of which she occasionally hints.

II.—When Melancholia becomes Insanity.

The second difficulty that arises is to decide: When is it possible to say of a person who is admitted to be suffering from morbid depression or melancholia that he is now legally insane? The patient himself will tell you: "I am not insane; I may be ill and suffering from depression, but I have my senses and I know what I am doing." The patient's friends always scout the idea of insanity. They say: "Doctor, he is as sensible as you or I; if he would only cheer up and stop thinking about his business he would be all right." In discussing this important point we must be careful to employ words with very definite meanings. We must have, in the first place, a medical term of an inclusive character applicable to every form of morbid mental state. The term "mental disease" will suit our purpose. Mental diseases, from the legal point of view, are divided into two groups—those in which the law has no special interest, and those in which the law is deeply concerned. The legal term for the latter is "states of lunacy," but as there are objections to the medical use of this term we will refer to these states as "insanity." Now the symptom the presence of which divides the legal form of mental disease or insanity from the other is disorder of conduct. Medicine deals with disease, and law with behaviour. So long as the symptoms of melancholia do not result in any loss of control over the conduct, then the patient is suffering from an ordinary disease, and cannot be reckoned insane or a lunatic. Whenever his conduct is based upon the mental symptoms of his disease, then he is to be regarded as insane or a lunatic. Whenever a person suffering from melancholia begins to act from motives entirely different from those of other people or of himself when well, and fails to conduct himself like other people, then his condition must be looked upon as one of legal insanity.

In the most simple and slight forms of melancholia the patient may struggle heroically against all the tendencies of his disease, and he may outwardly appear to be normal and may perform his duties more or less satisfactorily. So far his melancholia is purely a personal and medical question. Later on he fails to cope with his work, although physically there is no defect, he neglects the most ordinary social duties, and eventually he may cease to speak, or even to eat, and would starve himself if permitted. His melancholia is now a social, as well as a medical, question, involving as it does responsibilities to his family and to society in general. He is insane because his conduct is not that of an ordinary healthy person, but is determined by the symptoms of a disease.

III.—Certification.

The third question that arises is to decide the stage at which a person suffering from melancholia may be certified to be insane, and a proper person for placing under care and treatment in an asylum. At inquests upon those who have committed suicide, the doctors in attendance frequently reply, when asked why their patients were not under safe care, that it was impossible to certify them. It is, therefore, very important to know when a patient may be certified as being not only insane, but a proper person for care and unfit to be at large. He may be thus certified whenever his conduct becomes unsafe to himself or to others. Of all the forms of insanity, there is less difficulty in the certification of melancholia than any other, by reason of the danger of the patient taking his own life. The desire to die and to find oblivion is not a rare symptom in melancholia. Nor is it a symptom late to appear, but the very reverse, for the early stage of simple melancholia is the most dangerous period of the disease. Nor do the patients conceal their feelings on the subject, though they may not say in so many words that they are going to take their lives. They constantly say that life is not worth living, that they have no wish to live, and that they will be better in their graves. Knowing the frequency with which the attempt is actually made, no medical man has any right to ignore these indications in melancholia, and he incurs a great responsibility when he says they mean nothing. If in the opinion of the medical attendant there is reason to believe that a suicidal tendency exists, there can be no difficulty whatever in granting a certificate that the patient is a proper person for care and treatment in an asylum if it be necessary to care for him in that way.

If melancholia be a disease so easy of certification at an early stage, it is instructive to inquire why medical men frequently find it so difficult, and fail to do so. In the first place this is due to the fact that the symptoms of disordered conduct in melancholia are of a negative and not of an active kind. If a person shouts and uses violent language, if he destroys articles and attacks others, and if he gets into trouble owing to his foolish acts, all day long, one has no difficulty in filling up facts indicating insanity in a certificate. On the other hand, if he sits quietly, interferes with no one, and commits no offences, the indications of insanity are not so apparent. The omissions of the melancholic are nevertheless very serious and definite departures from normal conduct. I have, however, found from experience of students attending my classes that they have the greatest difficulty in recording negative facts in their certificates of insanity.

The other reason is probably the more important. It is, I suspect, believed by some medical men that unless a patient entertains definite delusions, he cannot be regarded as insane. We know of course that this is quite wrong, for most cases of melancholia are of the variety known as simple or non-delusional. The symptom of mental disease in these cases is not intellectual but emotional—they suffer from morbid depression. This symptom, moreover, affects the conduct more extensively than any delusion can, and the case therefore fulfils the requirement of disordered conduct needed by the law in all cases of insanity. It would, indeed, be a *reductio ad absurdum* if simple melancholia, the form of insanity in which the conduct is so disordered by unsoundness of mind that the patient's life is in the greatest danger, were not to be regarded as insanity!

Medico-Legal Summary.

Before dealing with the question of suicide, I desire to summarize in tabular form these medico-legal aspects of melancholia and of insanity in general.

Under the general term "mental diseases" we include every form of disease or morbid condition with mental symptoms. It includes the simplest derangement of mental function as well as the wildest disorder of the mind, the slight failure of memory which, like failing powers of vision, is an accompaniment of advancing years, as well as acute delirious insanity.

Mental diseases are divided into two groups. First, those which are not accompanied by any loss of the power of self-control or disorder of conduct, such as, for example, the slight failure of memory which I have mentioned. The diseases of this group are purely medical and personal. In the second group are those diseases in which there is loss of the power of self-control with disorder of conduct, and therefore these conditions are of legal as well as medical interest. The term "insanity" or "lunacy" may be applied to all these.

This group in its turn is also divided into two: those in which the conduct is not dangerous to the patient or others, and those in which it is or there is good reason to believe that it is. The former cannot be certified and sent to an asylum, but the latter may. Every case of melancholia in which the danger of suicide can be reason-

ably suspected of being present falls under the certifiable group. A person suffering from melancholia, who refuses his food, is endangering his life, and so he also is certifiable; if he be in such a state that he fails to take an interest in his general environment and welfare, and therefore cannot take proper care of himself, he also may be regarded as endangering his life by his conduct.

These views are summarized in the following table:

Mental Disease	A. No loss of self-control, and not involving conduct. (Personal and purely medical.)	
	B. Loss of self-control, and involving conduct. (Social and medico-legal.)	(*a*) Not dangerous (non-certifiable).
		(*b*) Dangerous (certifiable).

SUICIDE.

Many cases of simple melancholia are allowed to drift along, no serious view being taken of their mental condition till at length a definite attempt at suicide is made. If the patient be fortunate enough to escape with life, then it is suddenly realized by all that he is actually insane and in a dangerous state of mind. The majority of these attempts, luckily for all of us, are unsuccessful, because the defect of will power, which is the prevailing feature in the conduct of the melancholic, impedes him in the performance of this act as much as any other. He delays till the opportunity passes, or the attempt is half-hearted.

No case should be allowed to run these risks, nor would it if it were fully realized by the medical profession that every case of melancholia is a case of potential suicide. I believe that at one stage or another every case entertains the idea of it. There are stages, no doubt, in which patients, far from desiring to commit suicide, may dread to do so; but with all my experience I would hesitate to take the responsibility of saying that any melancholic was not suicidal.

There are two arguments which are sometimes advanced against these views. The subject may have been discussed with the patient. He may have admitted that he at one time entertained the idea, but asserts that he has now got over it, and that it was very foolish. He is now prepared in the first place to give the solemn assurance that no danger exists, and in the second place promises faithfully that he will not harm himself. Is the patient's word to be taken, and is he to be trusted? When he makes this statement he is perfectly honest and believes what he says, but in the course of a few hours, or a day or two, there may be an exacerbation of the disease, or an opportunity may occur. If he now desires to end his misery, and all his organic fear of death has vanished, and there is nothing between him and oblivion but the promise, the promise becomes a poor protection indeed. It is not fair to the patient to subject him to this danger; and to rely upon his word and his word alone at such a time is a very hazardous proceeding.

In the next place it may be said that the patient has had many opportunities of taking his life and has not availed himself of them. It is not generally known that people have fancies and whims as regards the means of committing suicide just as in other matters, and the favoured means may not have presented themselves. Thus a melancholic patient told me he walked along the banks of a canal without any suicidal desire, but when he came to any of the viaducts he had great difficulty in getting across safely. Then it must be remembered that, owing to defect of will power, the melancholic hesitates over every act, and he may not have been able, owing to this reason, to seize and take advantage of good opportunities. Some years ago a man drowned himself by jumping off a ferry-boat, and on his body there were found sixteen tickets. This man had crossed the ferry safely fifteen times, but still that did not demonstrate that he might be trusted to cross it always or even once more with safety.

The physician has usually great difficulty in convincing the friends of melancholic patients of this danger and of getting their consent to have the patient efficiently protected. Till he actually makes an attempt at suicide they do not regard him as insane. The patient naturally objects, and says: "If you get people to follow me about and watch me and treat me like a lunatic, you will turn me into one." Although he has no delusions, he is not only insane, but suffers from a dangerous form of insanity, and sooner or later if you do not guard his life for him he will take it.

Every person who has the charge of a case of melancholia bears the weight of a heavy responsibility on his shoulders, and I am afraid this responsibility is not always realized. If I were asked to concentrate the information contained in these lectures on melancholia into one sentence of practical value I would say, "Guard your cases of melancholia from the danger of suicide."

NEURASTHENIA.

Many of the suicides we see recorded in the newspapers are said to have been of persons suffering from neurasthenia. No doubt in some cases this is a mere euphemism which has been employed to spare the feelings of the patient and of his relatives. In other cases it is to be feared that the diagnosis of melancholia has not been made. This is a mistake of a most serious nature in view of the great difference that exists in the two conditions in their relation to suicide. In melancholia the danger is so great that the treatment of this one symptom colours the whole management of the disease. In neurasthenia and psychasthenia, on the other hand, the danger of suicide is very slight indeed, for, as a general rule, those suffering from them are remarkable for the great care they take of themselves. As the consequences of a mistake of this kind may be serious it is necessary to say something about their differential diagnosis.

The two disorders—neurasthenia and psychasthenia on the one hand and melancholia on the other—are quite distinct from one another. Nor do they tend to run into one another, for the great majority of neurasthenics, even with well-marked obsessions, may be so more or less all their lives, without any tendency to become melancholic or insane. Indeed, there are some who go further, and assert that the presence of neurasthenia affords a degree of protection from insanity. This question was very carefully gone into at the International Congress of 1889, and it was found that only in rare instances was it complicated with delusions of persecution, or with those of anxious melancholia, and then only at an advanced stage of the disease.

A considerable number of patients with melancholia, however, suffer from neurasthenic symptoms, and this is not surprising considering the fact that most of them have a neuropathic family history. In these cases it is usually found that a very definite cause or series of causes has been in operation. For example, lactational melancholia is often found associated with neurasthenia as a result of the nervous exhaustion produced by frequent and prolonged lactation, loss of sleep, deficiency of nourishment, and overwork and worry in domestic affairs among women of the working classes. The fundamental symptom of depression is present in these cases, and the diagnosis, therefore, of melancholia should not be difficult. It is feared that this failure to diagnose it is therefore due to the fact that this depression is confused with the mental anguish that is associated with obsessions in psychasthenia. It will therefore repay us if we consider the difference between the painful feelings in psychasthenia and in melancholia.

DIFFERENTIAL DIAGNOSIS.

The psychasthenic is subject to obsessions of an intermittent character, and for an example we will take misophobia. He, or, as is more frequently the case, she, has the idea or feeling that her hands get contaminated with dirt or disease whenever she touches anything, and as a result of this, although she knows that the idea is absurd, she feels compelled to wash her hands. I have known a patient do so 120 times a day. An obsession of this kind passes through four phases in the patient's mind. There is the first or *introductory phase*, marked by the entrance into consciousness of the idea or feeling. It is an unwelcome and unbidden guest, but the patient cannot escape its intrusion. This is succeeded by the second phase, or *latent period*, during which an internal conflict is going on in the patient's mind. She is struggling against the obsession, and so severe an effort may this be, that beads of perspiration may break out on the brow, and she may suffer from palpitation. At this stage the patient is melancholic, in so far as she suffers anguish owing to a sense of utter helplessness. The third phase

is marked by *victory for the obsession*, which grows irresistible, for the patient is compelled to wash her hands and actually does so. The final stage is reached by the *departure of the obsession*, and the patient then experiences feelings of great relief. She now becomes a fairly normal individual, takes some interest in things, and enjoys some of the pleasures of life, and continues to remain in this condition till the obsession visits her again.

There is no difficulty in most cases in differentiating between the anguish of the obsessed person and the depression of the melancholic. The former is markedly intermittent in character, with long intervals in which there is no depression, *except such depression as a sane person feels* who knows he has a trying disease. It is also secondary in origin and is due to the presence of the obsession. In melancholia, on the other hand, the depression is a continual gloom, and the patient derives no pleasure from life. It is also a primary condition, for which the patient is at a loss to account.

In addition to these essential differences in the origin, duration, and nature of the depressed feelings in these two conditions, they differ in numerous secondary respects. Physical and sensory phenomena are more definite and numerous in neurasthenia, whereas mental phenomena, such as well-marked retarded ideation and lack of interest, are very characteristic features of melancholia.

One word more may be said of aboulia, or defect of will power, which exists in both diseases. On analysis this will be found to be of a very different nature in the two conditions. In melancholia the patient is apathetic and indolent, and, for lack of a strong enough motive, fails to act, but the failure does not distress him much. On the other hand, the neurasthenic patient has every desire to act, yet, in spite of the most exhausting and agonizing efforts, he finds he has not the power. In the one case there is lack of desire and in the other want of the executive power to act, and the exhaustion and fatigue of the effort to act causes the neurasthenic the greatest distress. After a patient and careful analysis of the acts and feelings of the patient it is usually not difficult to decide which of these two conditions is present.

The differential diagnosis between neurasthenic and psychasthenic states and simple melancholia is one of the most important that requires to be made on account of the question of supervision—the former states being free from the danger of suicide, whereas in the latter this danger is the most urgent and cardinal symptom. It is quite certain from the records and the consequences that the diagnosis is very often wrongly made. It is therefore a wise and a safe precaution in every case of suspected neurasthenia to exclude melancholia by a careful analysis of the emotional condition. If there should still remain any doubt as to the exact nature of the case, the safer course to adopt till one has obtained further information is to regard it as one of melancholia, or complicated by melancholia.

TREATMENT—GENERAL PRINCIPLES.

In treating melancholia certain general principles must be acted on.

In the first place, bear in mind that melancholia is a disease, not a mental state that can be quickly removed by argument or persuasion. Like many other diseases, it runs its course, which is often not a short one. Recovery may take time, but in the end it comes and is complete. It is therefore necessary to have patience.

In the second place, like other diseases, those of the mind must be treated by physical means through the body. It is necessary to make a thorough physical examination, and if any disorder exists in any part of the body it should be carefully attended to. Almost all melancholic patients are in bad health, and therefore it seldom happens that good cannot be done. If there be an exciting cause for the attack, like prolonged lactation or excessive indulgence in alcohol, it is obvious this should be removed.

In the third place, I have been greatly impressed by the fact that good results are got by paying great attention to detail. Melancholia and other forms of insanity are not usually the result of one definite cause, but of a chain or sequence of many causes, which in their sum overwhelm the mental health of the patient. A similar principle should be followed in the cure of insanity, and recovery may be obtained by not relying exclusively upon one form of treatment, but many measures simultaneously. Any one of these details singly may be valueless, but in the mass they have often a definite effect.

In the last place, no form of disease is so benefited by the open-air treatment as insanity. Insanity does not tend to occur in those who are in good health—it is, indeed, surprising what the brain will stand if the health be good. It occurs in those who are run down through the prolonged action of debilitating causes. For such people no form of tonic treatment has yet been devised which is so efficacious as rest in the open air.

The Treatment of Melancholia.

The disorders of the gastro-intestinal tract must receive the first attention, as so much depends on proper alimentation. Indigestion and constipation are usually present, with the absorption of putrefactive substances from the bowel, for the ethereal sulphates can be demonstrated in the urine. The result of these is that the patient suffers from malnutrition, and becomes thin and anaemic, with a muddy complexion. It may be necessary to wash out the stomach. Calomel should be given, and the bowels should be periodically purged. Intestinal antiseptics may also be given, and the lactic acid bacillus treatment has done well in some cases.

If attention be given to the alimentary system, improvement often follows immediately, and the first sign of this is a rise in the patient's weight. In a disease which is possibly metabolic, and in which there is almost always disordered nutrition, there can be no more accurate test of improvement than this.

Among the faults of omission which form the symptoms of disordered conduct in melancholia one of the most important is the neglect and refusal of food. This must, of course, be overcome, and in the first place the patient should be coaxed. If coaxing will not do, the nurse must force the patient, and if this be impossible, then the patient must be fed by means of a stomach tube or nasal tube. Many patients suffering from melancholia gradually starve themselves, and a practical point of great importance is this—that it is not the patients who refuse *all* their food who starve. When this happens those in charge of the patient are so alarmed that artificial feeding is adopted practically at once. I regret to say, however, that I have admitted a patient who has not had food for nearly a fortnight. The patient who is most likely to starve is one who has for a prolonged period taken only a mouthful or two at each meal but has never absolutely refused. As something has always been taken, it is assumed that enough has been taken to keep body and soul together. Such cases are those most likely to starve, and whenever they begin to refuse food a daily chart should be kept, and the patient should be weighed weekly. It is perhaps not generally known that it is possible to tell whether a patient be starving or not by the sense of smell. Whenever the carbohydrates in the body are used up, there is the production of acetone, and the sweet distinctive odour of this substance can be smelt in the patient's breath.

The overfeeding of melancholic patients was at one time practised, but it is obvious that if the function of digestion be disordered, extra work should not be thrown on the stomach. Moreover, a patient is not fattened by the amount of food that goes into his stomach, but by the amount that is digested and assimilated by him. Milk is by far the best food, and as there is a tendency to putrefaction in the intestines, nitrogenous food should not be given at first.

The next symptom to receive attention is sleeplessness, and there are very few in the early stages who do not suffer from insomnia. Natural means should of course be tried in the first place to overcome this, such as the open air, moderate exercise, a quiet room, etc. If these fail, the two best hypnotics to use are paraldehyde and potassium bromide.

Paraldehyde is a perfectly safe drug. Two drachms may be regarded as a standard dose in the insomnia of melancholia, and it can be dissolved in 2 oz. of cinnamon water. As it acts as quickly as alcohol does, it should not be given till the patient is in bed. Its action can be assisted and prolonged by the administration of potassium bromide, in doses of 30 grains to 2 drachms. In the larger doses it should not be given continuously, as it has

a tendency to accumulate in the system. In my own experience veronal, of the newer drugs, while sometimes producing giddiness, unsteadiness of the gait, headache, and sickness, has been the most useful. In some cases of melancholia the blood pressure is high, and sleep will not be obtained till this symptom has been treated.

The third symptom needing treatment is the tendency to suicide, and this is of course done by means of continuous supervision exercised by skilled mental nurses over the actions of the patient. It is not necessary to add anything to what I have already said on this important subject. The nurses are also expected to occupy and interest the patient, and if by their attention and sympathy they win his confidence, they become therapeutic agencies of great value.

Three Special Methods.

There are three other modes of treatment to which I desire to refer briefly. The first is directed to a lowering of the blood pressure, which has often been found to be abnormally high. A warm bath lowers the blood pressure, and this is often followed by temporary relief of the symptoms. It also enables the patient to sleep if taken at bedtime. The most convenient way of reducing the blood pressure is by the administration of tetranitrate of erythrol. Half-grain tablets may be given twice daily, slowly increasing the dose till two or three grains daily are given. It is thought by some that the high blood pressure has an important bearing on the presence of feelings of depression, for in the converse state of maniacal exaltation the blood pressure is usually low. This form of treatment sometimes acts well, and is worth trying when other measures have failed. In one case of mine it was very successful where high blood pressure and depression were found to vary together in a remarkable way.

Another form of treatment also directed to remove the mental pain is the administration of opium. Some believe this feeling of pain is due to a sense of resistance and difficulty in the environment, the result of muscular sensations and impairment of movement. It is more probable that it has an organic basis, and is due to the general malnutrition of the body, the result of which is that the important organs transmit nervous impulses to the centres of a disagreeable kind. These impulses we are not conscious of, but it is believed that the massive effect of the whole forms the background of our consciousness, and produces our feelings of well-being or malaise as the case may be. The rational way of removing mental pain due to such a cause would be to remove the malnutrition by tonic treatment. This is attempted, but in addition it is believed that this feeling of depression can be alleviated by opium. In France it has been largely used for this purpose, and I have found it of marked service, especially in some cases of anxious melancholia. It is best given in the form of tinctura opii, starting with 5 minims three times a day, and rapidly increasing the dose till definite results are obtained. This form of treatment has many disadvantages, among which are two: It tends to increase the difficulties caused by constipation and sluggish action of the liver, and it tends to create a habit to which the patient may fall a victim. If administered, it should be done without the knowledge of the patient.

Lastly, melancholia tends sometimes to become very chronic, and in these cases, if the state of the nutrition permits it, and there is no organic disease to contra-indicate its use, fairly large doses of thyroid may be given for one week. Three tabloids of 5 grains each should be given the first day, then 6, 9, 12, 9, 6, 3 daily in succession—an increase of three each day, till a maximum dose of 60 grains is reached on the fourth day, followed by a decrease of three each day. The patient must be kept strictly confined to bed and the pulse carefully watched. This drug undoubtedly acts as an excitant of the nervous system, but it is believed that its beneficial effects in melancholia are largely due to its influence on the general metabolism. There is a stirring up and a quickening of the trophic activities, and on the basis of this change a fresh start towards recovery may be made.

PROPHYLAXIS.

In conclusion I desire to say one word on prophylaxis. In all other departments of medicine the prevention of disease is considered the highest aim, and we have now reached a stage in psychiatry in which our attention is being given to the prevention of mental disease. I say nothing at the present time on the interesting subject of eugenics, but I would urge on the family physician the necessity of dealing promptly and seriously with the earliest indications of disordered mental function. This is particularly necessary in the cases of those who have suffered from previous attacks, and in the members of families known to them to have a neuropathic history, when they are undergoing any severe strain. For example, a neurotic daughter will nurse an aged mother, with morbid conscientiousness and anxiety, losing her natural rest and depriving herself of relaxation and fresh air and exercise. When the shock of the inevitable end falls upon her, or even before then if she be a victim to influenza, she suffers a complete mental breakdown. It is the duty of the family physician to foresee the possibility of this, and to prevent it if that be possible. The early stages of mental disease are functional, and this is more applicable to melancholia than to any other form. Complete rest, a change of scene, agreeable companionship, and simple attentions to the health may then in a few days or a week or two be the means of averting a threatened attack. The mental as well as the physical health of these individuals and families should be in the mind of the family physician.

THE ETIOLOGY OF IRITIS.

BY

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ON July 16th, 1910, an article appeared in the JOURNAL upon the etiology of iritis, which led to a very interesting correspondence. Mr. Kenneth Campbell stated that in his experience, taking all cases of iritis into consideration, 70 per cent. were due to syphilis, 20 per cent. to gonorrhoea, 9 per cent. to oro-alimentary, uterine, and tubal infection, and 1 per cent. to tuberculosis. He denies the existence of "rheumatic iritis." Römer, in his new textbook, embodying his lectures at the University of Greifswald, states that 25 per cent. of his cases are due to syphilis, a disease which is at least as common in Germany as in England. He devotes several pages to a consideration of rheumatic iritis, and carefully distinguishes it from gonococcal iritis. Worth, in a letter which appeared in the JOURNAL for August 13th, 1910, finds that only 30 per cent. of his private cases are due to syphilis, and ascribes more than one half to oral sepsis and kindred conditions. Beaumont, of Bath, believes that the rheumatic iritis is uncommon, and that many cases ascribed to rheumatism are really gonococcal. C. W. Jennings (*Ophthalmology*, 1909) found that among 500 cases of iritis 25.4 per cent. were rheumatic, and only 5.2 per cent. were gonococcal. Kenneth Campbell states that "of double iritis the cause is almost certainly syphilitic."

In view of this wide divergence of opinion it has seemed to me worth while to go through my casebooks, both private and hospital, and extract all the cases of iritis with a view to determining what proportion must be allowed to the different sources of infection, and whether any guide to diagnosis can be ascribed to the fact that one eye or both is affected.

Among 5,710 patients I found 100 suffering from iritis, a percentage of 1.75 only. I have included all cases of primary irido-cyclitis, but have excluded examples of interstitial keratitis complicated with iritis, and all traumatic cases, which are very common in a manufacturing town like Coventry. A septic foreign body in the cornea often induces a fairly severe iritis.

I shall first deal with the cases as a whole, and then compare my private with my hospital patients. I am fully aware that it is impossible to formulate any absolute law upon 100 cases, but it is possible to gather some valuable information, even from such a small number.

Exact diagnosis is exceedingly difficult, often quite impossible. In most cases one cannot determine the etiology

from the local signs, although occasionally the appearance of the iris is quite pathognomonic. I have examined the cases in the following way. The local examination has always been made in the dark room with the aid of a Zeiss loup, and with the ophthalmoscope. The patient has then been examined for rashes, enlarged glands, sore throat, and has been questioned closely to exclude syphilis. As iritis is chiefly a secondary symptom, when no other signs of infection can be detected, and no history can be obtained, it seems fair to regard the syphilitic etiology as improbable unless the local appearances are characteristic of that disease. Römer carefully distinguishes between an early syphilitic roseola of the iris, corresponding to the early skin roseola, an early papular form, a late papular form, and a gummatous iritis. The syphilitic changes are situated deep in the iris, and the adhesions to the anterior capsule are broad and are not confined to the pigment layer of the iris. But what one often sees in early secondary iritis is a ciliary blush, slight muddiness of the aqueous, little or no change in the appearance of the iris, with tiny thread-like adhesions between the capsule and the iris pigment layer. In addition, there are usually precipitates upon the anterior capsule, and less frequently in these very early cases upon the back of the cornea. When the pupil has been dilated with atropine—and it often dilates fully—a *ring* of pigment is seen on the anterior capsule. A ring in contradistinction to isolated islets of pigment is at least suggestive of syphilis.

If syphilis can be excluded and the patient is a man, one can inquire about recent or past gonorrhoea. It is quite unnecessary that the gonorrhoea be recent. I have seen gonococcal iritis in a man who had had the disease twenty years before, and had been free from it since that date. In gonococcal iritis there is a tendency for a gelatinous-looking exudate to accumulate upon the iris, and occasionally in the anterior chamber, but this condition is often absent.

Having excluded syphilis and gonorrhoea as far as possible, I then inquire for joint pains, and evidence of osteo-arthritis, the so-called "rheumatism." This condition is almost certainly an autotoxaemia, and I would prefer to class these cases as autotoxaemic rather than as rheumatic.

The teeth and nose should now be examined, for iritis, and especially an insidious cyclitis, are frequently due to toxins absorbed from pyorrhoea alveolaris, from sinus disease, and from other septic foci in the nose. Probably a septic otorrhoea may be responsible for some obscure forms of irido-cyclitis. Suppuration elsewhere in the body should not be neglected.

It is now well to go into the question of tuberculo-toxaemia thoroughly. When other causes have been excluded, and the patient has enlarged glands, or a history of such, a tuberculous family history, or other signs of this infection, the iritis may be due to the presence of tuberculo-toxins in the blood. Such examples should be tested by the subcutaneous injection of tuberculin, and treated by von Hippel's method. I have dealt fully with this subject in a paper in the *Ophthalmoscope* for December, 1910, and it need only be mentioned. Tuberculous iritis proper is rare. I have only seen one case among over 5,000 patients. If all these probable causes have been excluded, the probability of intestinal sepsis must be investigated, but it is hardly scientific to ascribe iritis to this cause unless indican, phenol, and an excess of sulphates are present in the urine. I am certain, however, that intestinal conditions can and do originate chronic cyclitis. I saw a case a year ago in which chronic cyclitis was associated with mucous colitis. When the colitis was actively treated the evidences of cyclitis, precipitates upon the back of the cornea, entirely disappeared.

The results of my investigation appear in the accompanying table. As there are 100 cases all the figures are percentages.

Cases of iritis formed 1.84 per cent. of 1,630 cases seen in private, 1.16 per cent. of 600 cases seen at the Warneford Hospital, and 1.77 per cent. of cases seen at the Coventry Hospital. The combined hospital percentage is 1.69, as against 1.84, the percentage among my private patients. Twenty-nine per cent. of my private patients had an iritis of unknown etiology. In half of these 8 cases only one eye was affected; in half, both. Five were females, three males. It is only to be expected that in hospital practice

Table showing the Etiology of Iritis in 100 Cases, both Private and Hospital.

Etiology.	Number.	Male.	Female.	Single.	Double.
Doubtful	41	16	25	27	14
Syphilis	22	9	13	10	12
Oral sepsis, nasal, etc.	12	7	5	7	5
Gonococcal	6	6	—	4	2
Rheumatic	6	5	1	5	1
Tuberculo-toxaemia.	5	2	3	3	2
Intestinal stasis ...	4	1	3	1	3
Albuminuric	2	—	2	2	—
Diabetic	1	1	—	1	—
Tuberculous	1	1	—	1	—
Gout	0	—	—	—	—
Total	100	48	52	61	39

Table comparing the Etiology of 31 Private Cases of Iritis with 69 Hospital Cases expressed in Percentages.

Etiology.	Hospital.	Private.
Doubtful	47.8	29
Syphilis	18.8	25.8
Oral, nasal, and general septic conditions	5.8	25.8
Gonococcal	7.2	3.2
Rheumatic...	5.8	6.4
Tuberculous toxaemia	5.8	3.2
Intestinal sepsis	2.9	6.4
Albuminuric	2.9	—
Diabetic	1.45	—
Gout	—	—
Percentage total	99.45	99.8
Total	69 cases	31 cases.

the proportion of doubtful cases is higher. But in most of my cases the advice to see the dentist was written upon the prescription paper, and not in the notes, which until recently were kept in books. A comparison of the percentages of private and hospital cases due to oral sepsis shows that over four times as many private cases suffered from oral sepsis as hospital patients, which is contrary to reason. It is only recently that I have realized the immense importance of oral sepsis in the genesis of iritis, although I have long known its etiological value in cyclitis. I am of opinion, then, that a large proportion of the doubtful cases are really due to oral sepsis. Few of them can have had secondary syphilis, for I have invariably gone into this question very carefully.

The net result of the inquiry is that in at least 30 per cent. of all cases it is almost impossible to determine the real origin of the disease. Twenty-five per cent. are due to syphilis, and only about 5 or 6 per cent. can truly be termed rheumatic. An examination of the figures shows that in 22 syphilitic cases 10 were monolateral and 12 bilateral, so that this question cannot be considered in coming to a diagnosis. Cases due to oral sepsis and to intestinal stasis are more frequently bilateral than syphilitic cases. One patient put down as rheumatic iritis had had an acute attack of rheumatic fever only five weeks before the iritis came on. Two cases were associated with albuminuria. In one there was albuminuria, iritis, and a single retinal haemorrhage, but no retinitis. The other was a case of albuminuria and general anasarca. No case due to gout has ever been seen by me. The investigation lends no colour to Mr. Kenneth Campbell's view that 70 per cent. of all cases are due to syphilis. Even allowing that *all* my doubtful cases were syphilitic, which

is absurd, even then the figure only reaches 63 per cent.! I believe that Römer's estimate, 25 per cent., is the correct one. It is interesting to note that in Palestine iritis is almost unknown, although pyorrhoea is very prevalent. I only remember seeing two or three cases among several thousand seen at the British Ophthalmic Hospital.

A FEW POINTS ON SOME COMMON AFFECTIONS OF THE EYES.*

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I propose to touch upon some affections of the eyes which every busy general practitioner is liable to meet fairly frequently, and will endeavour to give a few practical points that may be of some help.

We all know the difference between the injection of an eye in iritis and conjunctivitis. In iritis the injection is immediately around the cornea and is of a pinkish hue, whereas in conjunctivitis the hyperaemia is more marked towards the periphery of the bulbar conjunctiva. But it is not very uncommon to come across cases of conjunctivitis where there is, from the appearance of the eye, some doubt as to iritis being also present, and I am sure you will all have seen cases like the following:—

A patient with one or both eyes markedly red, with no diminution of the injection towards the margin of the cornea. We often find that the eye has been treated at home by keeping it tied up, or by poulticing it—perhaps with tea leaves. Such treatment, besides increasing the vascularity of the conjunctiva, may cause partial maceration of the corneal epithelium, and this, if one is not on one's guard, may be mistaken for turbidity of the aqueous, which is another sign of iritis. To proceed with the diagnosis, we next test the reaction of the pupil to light, and, if this is not satisfactory, inquire as to pain; stabbing pain in the eye, waking the patient about 2 or 3 a.m., is very characteristic of most cases of iritis. If still in doubt whether there is or is not some iritis present one next puts in a drop of ½ per cent. atropin (provided glaucoma can be excluded), and if the pupil dilates well in half an hour, with no iris pigment or exudate on the anterior capsule of the lens, we may then conclude that there is no iritis. Giving such a patient atropin to use regularly at home, in addition to the correct treatment for the conjunctivitis, may in many retard the cure, and is only permissible when, after a thorough examination, there is still some doubt as to threatened iritis; in such a case it is better to order weak atropin drops (½ to 1 grain in the ounce) and see the patient in a day or two, when the eye may be found free from any suspicion of iritis, and the drops can then be discontinued.

The mistake usually made in treating conjunctivitis is in using strong astringents or strong antiseptics at the commencement; the condition is thus usually aggravated.

Boracic acid lotion, to wash out the conjunctival sac *thoroughly*, or even only sterilized water with some sodium chloride in it, will in many cases bring about the cure. In other cases astringents may later on be necessary, and as there are many of these to choose from, it is better to avoid the *lead lotions*, because, if there be an ulcer on the cornea, a white and disfiguring incrustation of lead forms at the site of the ulcer. This could only be removed afterwards with great difficulty. I have seen this occur on more than one occasion after a patient has had a lead and opium compress on the eye for a short time to relieve pain. These ulcers proved most obstinate to get to heal, required scraping several times, and were very painful. Attention to the patient's health and surroundings and getting him into the open air are extremely important, and may effect a cure without any applications to the eyes.

Unless advised not to do so, patients think they should stay indoors when they have what they call "cold in the eyes," and that they should even keep in a darkened room. There is no advantage in keeping a patient suffering from conjunctivitis in a darkened room. Dr. Berry points out that though the actinic rays are known to cause irritation of the conjunctiva, which may indeed, as in snow blindness and electric light ophthalmia, be so great as to lead to violent inflammation, on the other hand they have a powerful bactericidal effect. The light of an ordinary room when the sun's rays are not directly passing into it has no bad effect on conjunctivitis.

There is one form of inflammation of the lids, *angular conjunctivitis* (Morax diplobacillus), in which zinc salts are the most effective treatment; here the inflammation is of a subacute type, with the redness most marked at the angles of the lids.

Poulticing, or what comes to the same thing, tying an eye up (as the tears and discharge from the eye keep the bandage moist), is usually harmful; it increases the vascularity, and favours the growth of germs which are always present in the conjunctival sac. Nature by the act of blinking does much in the way of cleaning the sac.

If one eye alone be affected by conjunctivitis, be on your guard against the *tear sac* being the source of the trouble. In chronic blenorrhoea of the sac without marked distension the condition may easily be overlooked. Here it is the contents of the tear sac regurgitating through the puncta that keep up the irritation of the conjunctiva. Firm pressure over the sac with one finger will force some purulent matter through the canaliculi, and show the cause of the conjunctivitis.

Many early cases of inflammation of the tear sac, especially in young infants, can be cured by instructing the patients or the parents to empty the sac by firm pressure applied to it by the finger as frequently, it may be, as every half-hour. If the secretions are allowed to remain in the sac they act as an irritant to the mucous membrane, which becomes still more swollen, and so any stricture at the junction of the sac with the nasal duct is increased. Inflammation of the tear sac besides causing troublesome epiphora is a constant source of danger owing to the risk of infecting any corneal wound; a slight scratch of the cornea may in this way lead to a hypopyon ulcer, and perhaps to the ultimate loss of the eye. Similar danger to the cornea must be guarded against in ophthalmia neonatorum and in gonorrhoeal ophthalmia of adults; rough handling in examining such an eye may easily cause an abrasion of the cornea, and so allow its inoculation by the conjunctival discharge, which may result in a perforating ulcer and total loss of the eye. It is advisable, therefore, before examining such eyes to first instil a drop of cocaine inside the lids.

Credé's method is an excellent prophylactic. I find the number of cases of ophthalmia neonatorum seen at the Eye Infirmary within the last few years has markedly decreased.

You may be called to see a patient complaining of pain in one eye, and on looking at it you find no conjunctivitis to speak of, but distinct circumcorneal injection. Assuming that the tension of the eye is not raised, and that glaucoma can therefore be excluded, you have to deal with either an affection of the iris (or deeper part of the eye) or of the cornea. It is not necessarily the iris that is affected; it may be a corneal ulcer, only to be discovered on minute examination. Many, I am afraid, at once jump to the conclusion that it must be iritis, and the patient thereby may be placed at a great disadvantage. A small corneal ulcer without any infiltrated edge may have to be searched for very carefully to be detected; the same remark applies to herpes of the cornea, or to the presence of a minute foreign body on the cornea, or to a slight abrasion of the cornea.

Here I wish to draw attention to the great advantage of using fluorescein (resorcin-phthalein anhydride) as a means of diagnosis in corneal affections. It may be used as drops (fluorescein 2 and sodium bicarbonate 3 in 100); one placed in the conjunctival sac, and then the excess washed out with, say, boracic lotion or sterilized water, will leave a brilliant green stain on any part of the cornea that has been denuded of epithelium, thus mapping out beautifully any corneal ulcer. A minute foreign body on the cornea would be more readily detected after using fluorescein, owing to the green ring which would appear round it, and it would therefore be much more easily removed. Fluorescein can be obtained in small tabloids to place inside the lids, a more convenient form for carrying about.

* Read before the Newcastle-on-Tyne Division of the British Medical Association.

Another aid to diagnosis is oblique illumination combined with the use of a magnifying lens or corneal loup. By this method it is often possible to recognize signs of iritis, which otherwise might be difficult, for fine deposits on the anterior capsule of the lens can thus be detected. This method is extremely useful to see the punctate deposits on the posterior surface of the cornea, which are sometimes the only signs of cyclitis, and which may be so faint that it may be impossible to see them with the unaided eye. These deposits are due to inflammatory exudates from the ciliary processes, and, owing to gravitation, are usually situated on the lower part of the cornea.

Yellow oxide of mercury, or Pagenstecher's ointment, is extremely valuable in suitable cases, but if indiscriminately used it can do much harm. I am afraid that in some quarters it is almost looked upon as a panacea for diseases of the eye. The suitable cases for its use are phlyctenular conjunctivitis, strumous or superficial keratitis, blepharitis, and to aid in the clearing up of corneal opacities, when the eye is free from inflammation. There is a tendency to think that, if any ointment is to be used to the eyes, it must be the yellow oxide, and that if any drops are necessary they must be atropin drops.

In conclusion, I wish to insist on the importance of being able to tell whether the tension of an eye is raised. Take every opportunity of testing the tension; if in doubt as to what normal tension is, try your own eyes. Unless you are able to appreciate difference in tension you will fail to diagnose many cases of glaucoma. When house-surgeon, I saw admitted into an infirmary two spinster sisters almost completely blind through chronic glaucoma. Their medical attendant had diagnosed cataract, and had not sent them in till he thought the cataracts must be ready for extraction, as they came from a considerable distance. Nothing could be done at this late stage to avert complete blindness.

THE MECHANICAL ETIOLOGY OF OPTIC NEURITIS.

BY

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OPTIC neuritis, or papilloedema,[1] to give it its more recent appellation, is the most interesting and at the same time the most puzzling symptom of intracranial disease.

The views held with regard to its causation are numerous, and we could do no better than quote F. W. Mott's summary of them:[5]

1. That it is due to inflammation or irritation of the optic nerve sheath, produced either by irritation arising from substances in the cerebro-spinal fluid of the sheath of the optic nerve or by direct extension of meningitis.

2. That it is due to obstruction to the outflow of venous blood from the ophthalmic vein by increased intracranial pressure on the cavernous sinus. But this theory of von Graefe has been disproved by the fact that a free anastomosis occurs between the ophthalmic and facial veins.

3. That the intracranial pressure interferes with the return of lymph from the sheath of the optic nerve.

Sir W. Gowers,[6] for instance, favours the first view by attributing optic neuritis to the possible presence of toxic substances in the cerebro-spinal fluid; and Osler[7] and Elschnig[1] regard the presence of inflammation as essential to its production.

It is obvious that the above views are more or less conjectural, and are of little or no help in trying to elucidate the condition which causes this change in the optic nerve by so many morphologically, pathologically, and regionally different lesions.

We should be in a position to account for the presence of papilloedema, for instance, in connexion with minute growths, especially of the cerebellum; its conspicuous rarity in cases of certain cerebral neoplasms of large size, notably of the corpus callosum; its comparative frequency in otitis media; and its inconstant character in cases of meningitis, abscess, and other inflammatory lesions.

Clinical evidence has gone far to prove that the toxic or inflammation theories are untenable. The fact that papilloedema is rare in post-basal meningitis, even in cases in which the inflammatory exudate has been found, *post mortem*, to have extended as far as the optic commissure,[10] and its predominance in non-inflammatory conditions, such as tumour, chlorotic and other non-infective sinus-thrombosis, and cerebral aneurysm, constitute an uncontestable negation to such hypotheses.

Recent clinical and experimental work, especially the researches of Sir Victor Horsley[1] have greatly helped to convert us to the belief that increased intracranial pressure is the principal mechanical agent in the production of papilloedema. In spite of the unanimity of most observers as to this point we cannot but agree with the opinion of Horsley and Swanzy[1] that the chief factor which produces this increased intracranial pressure has not been definitely ascertained as yet, and, furthermore, it cannot even be said that any successful theoretical attempt has been made to correlate, or to suggest an interpretation applicable to all cases of increased intracranial pressure with optic neuritis, from all causes, irrespective of their character, site, or dimension.

There can be no doubt that most clinicians have viewed this question from a purely pathological standpoint, and have looked for its answer solely amongst morbid causes. A survey of the work of Hill,[13] Cushing and Bordley,[18] Mott,[3] and others, shows, however, that a correct solution of the problem must be based upon physiological findings, which may now be said to be sufficiently advanced to enable us to locate, so to speak, any derangement in the physiological mechanism which induces increased intracranial pressure, and to which we now propose to refer.

It has been conclusively established that the cerebro-spinal fluid is secreted by the choroid plexuses of the ventricles, and that the channels of its resorption are the superior cerebral veins which join the superior longitudinal sinus.[14] The ventricles, then, may be looked upon as reservoirs for the constantly secreted cerebro-spinal fluid, while the subarachnoid space constitutes the main absorptive area. Each vein is surrounded by a sheath, which is an "intracerebral prolongation of the subarachnoid space" (Mott[12]), and the capillary interval between this perivascular lymphatic sheath and the vein wall is normally surrounded, to use Mott's words, by a cuff of cerebro-spinal fluid, and thus these veins are chiefly concerned with the withdrawal of fluid from the subarachnoid space.[15]

Our observations lead us to advance the contention that arrest of, or marked interference with, the cerebral venous return (with consequent subnormal cerebro-spinal fluid absorption) is the predominant factor in producing increased intracranial pressure, and that papilloedema is due to the resulting rise of fluid pressure in the optic nerve sheath. Given a condition of inhibition of the process of absorption, the pressure in the subarachnoid space will increase, either by continued secretion of cerebro-spinal fluid or by the diminution of the cerebro-cranial space.

We hold, therefore, that in every case of optic neuritis, from whatever cause, the patency of the veins is obliterated or the flow of their contents obstructed by blockage somewhere in the "superior longitudinal jugular line" (commonly the right), or they are rendered impervious by disease of the lymphatic sheaths. Thus, our view is diametrically opposed to that of Thomson Henderson,[8] whose deductions are based upon the assumption that "the intracranial pressure represents the venous pressure" (Hill),[12] in all pathological conditions, and who asserts that whenever there is increased intracranial there is increased venous pressure. But in cases of increased intracranial pressure with choked disc, there being no corresponding rise in the intraocular pressure, he ascribes the oedema and tumefaction of the nerve head to the intravenous pressure of the retinal veins reaching a higher level than the intraocular pressure. To refute Mr. Henderson's argument, suffice it to quote a few lines from the review of his book in the BRITISH MEDICAL JOURNAL[9]: "Chronic irido-cyclitis often ends in a soft eye, it may be one like a pudding bag with no tension." In such a globe the tension is

manifestly lower than the intravenous tension. If the Henderson theory were correct, we should have optic neuritis in all "soft" eyes!

Needless to say, the anatomy of the venous sinuses of the brain has an important bearing on this question. We have already seen that the superior longitudinal receives the superior cerebral veins, and is the principal carrier of cerebro-spinal fluid. The superior usually becomes the right lateral,[14] which thus acquires greater importance than the left. The same remarks apply to the right and left jugulars. The other sinuses take part in the production of papilloedema in so far as they may bring about closure of what we may term the primary sinuses by consecutive thrombosis.

We may now consider the pathological conditions which give rise to optic neuritis, to see whether they present any features which are not compatible with our views, which we may summarize, for the sake of clearness, as follows.

Papilloedema results from the lessened or arrested absorption of fluid from the subarachnoid space, in consequence of:

(*a*) Obliteration of the patency of the superior cerebral veins.
(*b*) Disorganization of the perivascular lymphatic sheaths.
(*c*) Occlusion of one or more of the venous sinuses.

Optic neuritis is found in association with (*a*) vascular, (*b*) organismal, and (*c*) neoplasmic lesions.

(a) Vascular.

The explanation of the papilloedema from thrombosis of the superior longitudinal sinus, as in chlorosis, typhoid, marasmus, pneumonia, etc., is self-evident, being due to the fact that the main channel for the discharge of surplus cerebro-spinal fluid is occluded. The observation that the subsidence of the neuritis in chlorosis is due to canalization of the clot[10] lends strong support to our theory. Blockage of the venous stream at any point, more so on the right side, may produce the same results, and the papilloedema of otitic origin is due to lateral sinus thrombosis, especially if the clot extends into the superior longitudinal. We venture to assert that even ligature of the right jugular in the neck may be capable of producing papilloedema if the emissary veins, especially the mastoid vein, are insufficient to establish compensatory venous return or are occluded by thrombosis or other cause.

(b) Organismal.

1. *Syphilis.*—The histology of cerebral syphilis constitutes one of the most important links in the chain of our arguments. The lymphatic sheaths have mainly been studied in this disease as they become thickened and conspicuous.[2] This endolymphangitis is doubtless responsible for the impairment of the absorptive function of the superior cerebral veins.

2. *Meningitis.*—We have already stated that in some cases of extensive basic meningitis there is no optic neuritis. In all probability in these cases the lymphatic sheaths are not involved. Papilloedema, however, is bound to result whenever the inflammatory process seals the openings of these "intracerebral prolongations of the subarachnoid space." For obvious reasons "abscesses" will be considered with tumours.

(c) Neoplasmic.

Tumours in the cortex or substance of the cerebrum act by compressing the brain tissue adjacent to them, and ultimately the veins. Obviously, a tumour of the cerebrum must attain a considerable size before it can press upon the veins. A point of some importance is the well-known fact that optic neuritis is not so common a sequel of abscess in the temporo-sphenoidal lobe as it is of abscess in the cerebellar region, for the simple reason that a much larger accumulation of pus or more extensive accompanying meningitis is needed for its production in the cerebral than in the cerebellar area. On the toxic or inflammatory theory, however, optic neuritis should be equally common in both varieties.

Tumours of the Cerebellum and Corpora Quadrigemina.

We may first direct attention to the following facts:

1. Optic neuritis is present in 100 per cent. of quadrigeminal, and 89 per cent. of cerebellar, tumours.[7]

2. The neuritis is generally equal and bilateral.*[10]

3. Subtentorial abscesses are more frequently accompanied by optic neuritis than abscesses in the cerebrum.

4. A condition of internal hydrocephalus is present in connexion with cerebellar and quadrigeminal tumours with optic neuritis.

Growths or abscesses in the cerebellum or tumours of the corpora quadrigemina bring about compressional closure of the iter, which may also be closed by intraventricular tumours. The foramina of Majendie and Luschka may become occluded by lymph or scar stenosis (meningitis). The secretion of cerebro-spinal fluid being uninterrupted, the shutting-off of its natural outlet results in the production of internal hydrocephalus. The dilatation of the ventricles under considerable internal hydraulic pressure cannot but produce collapse of the delicate veins in the brain substance, and therefore cessation of cerebro-spinal fluid absorption. It may be argued that, there being no increase of fluid in the subarachnoid space owing to the non-patency of the iter or the foramen of Majendie, there should be no rise of pressure in the subarachnoid space, and therefore no neuritis. It must be borne in mind, however, that by the dilatation of the ventricles the size of the brain generally undergoes increase, and the cerebro-cranial space becoming diminished, the intervening fluid, however small in quantity, is bound to be subjected to pressure, and driven into the sheath of the optic nerve, and at the same time plays the rôle of an additional force in compressing the veins.

Mott describes a most instructive case[2] of a tumour of the choroid plexus which gave rise, intermittently, to all the symptoms pathognomonic of cerebral tumour, and which, according to Mott, seems to have acted like a ball valve in periodically blocking the iter. He attributes the intermittency to a condition of cortical *anaemia* resulting from the temporary internal hydrocephalus. The production of anaemia or ischaemia by internal hydrocephalus is taught, then, by so great an authority as Mott. We venture to differ from him, however, in so far as we believe that it is unlikely that the arteries are interfered with, and that the thin-walled minute veins with their low blood pressure are the vessels that undergo collapse, a view which also affords us an explanation for the drowsiness, vomiting, and other symptoms of intracranial disease, and has an important bearing upon operative measures.

In conclusion we may refer to a valuable paper by J. Stoddart Barr and John Rowan of Glasgow.[4] We have already stated that papilloedema in connexion with ear disease is, in our opinion, evidence of sinus thrombosis, and we are supported by Grüning[4] and Friedenberg.[4] Barr and Rowan found 6.8 per cent. of optic neuritis in cases of middle-ear disease that came under their observation, and they attribute it to the possible existence of "serous meningitis"—a vague statement, which does not harmonize with their declared belief in the mechanical origin of papilloedema. We have little difficulty in persuading ourselves that the cases they reported as otitic optic neuritis consequent upon serous meningitis were cases of laternal sinus thrombosis.

The following case, which presented many remarkable features, is a characteristic example of sinus thrombosis with optic neuritis.

H. W., aged 28, was admitted to the Ashton District Infirmary (sent in by Dr. Spencer of Ashton) on October 5th, 1910, suffering from acute mastoiditis. He gave a history of six years' discharge from the right ear. On admission his temperature was 99°, pulse 120. He had a well-marked retro-auricular abscess. He was operated on immediately. The complete mastoid operation was performed, but as the disease had spread into the cranial cavity, more bone was removed so as to get a thorough exposure of the lateral sinus. The latter was bathed in sanious pus, with a conspicuous erosion on its wall which bled profusely on entering the skull. The bleeding was rapidly arrested with gauze plugging. The patient's condition gave rise to anxiety, and we did not deem it advisable to carry out our original intention of tying the jugular vein. Accordingly the wound was plugged, and he was returned to bed. He progressed satisfactorily for the next three days. His temperature rose, however, on October 8th, and he had a rigor on October 11th. The wound looked perfectly clean. On October 12th there was some swelling and erythema on the right side of the neck. He was operated on again this day. The right jugular vein was exposed and found full of clot as far as the omo-hyoid. Its cardiac end was ligatured, and the cephalic segment dissected up to its junction with the common facial vein. The latter was ligatured, and the jugular itself, being emptied of its clot, was sutured to the upper angle of the wound,

* Sir Victor Horsley holds that in its early stages the neuritis is always more pronounced on the side of the lesion.

which was closed without drainage. The wound healed per primam, and the vein, after discharging for three days, became completely obliterated five days after the operation. From the date of the jugular operation the patient had neither circulatory nor thermic disturbance, and seemed quite comfortable. On October 15th he complained of his sight being dim and of being unable to read his papers. His eyes were examined for the first time by us and by Mr. Wilfrid Lawson, ophthalmic surgeon to the hospital. He had intense double optic neuritis. We decided to relieve his pressure by lumbar puncture. At the first tapping his cerebro-spinal fluid pressure was 13 in. by Eve's instrument; ʒiv were removed, and the pressure reduced to 1 in. He was thus tapped successively on November 2nd, 5th, and 10th, removing on each occasion ʒvi, ʒiv, and ʒviij respectively, and leaving the pressure at 1 in. every time. The improvement after each aspiration was marked but transient, and so we decided to submit him to a subtemporal decompressive operation. On removing the disc of bone, the dura bulged out of the opening, but no pulsations were discernible. The dura was slit open by a crucial incision. A large amount of cerebro-spinal fluid escaped. On inspection the following were the striking features: There was an interval of about half an inch or more between the brain and the skull. The pial veins were prominent and distended. Even towards the close of the operation there was no tendency on the part of the brain to herniate or even to approach the skull. The tips of the four dural flaps were brought together, leaving four minute slits for drainage. The wound was closed in the usual way. Convalescence was uneventful. The patient's sight rapidly improved, and the papilloedema had entirely subsided on December 12th.

Peculiarly enough, we had the opportunity of watching another case presenting similar features, but involving the left mastoid, and, though the antrum, sinus, and jugular procedures were carried out, there was no optic neuritis.

With regard to the advisability of performing a decompressive operation in these cases Barr and Rowan disagree with Sir Victor Horsley. They state that, in their experience in these otitic cases, the optic neuritis clears up without operative interference. Their attitude is right in a sense, as compensatory venous return does get established in most instances by canalization of the clot or otherwise; but in severe types of papilloedema delay may cause irremediable damage to vision, while a decompressive operation—a minute opening is sufficient in these cases—is a precautionary measure the delay of which entails greater danger than its performance. In this connexion the words of a renowned surgeon (!), Oliver Cromwell,[11] are worth bearing in mind:

But as in quinsy or pleurisy where the humour fixeth in one part, give it scope; all diseases will gather to that place to the hazarding of the whole, and it is natural to do so till it destroy life in that person on whomsoever this befalls. So will these diseases take accidental causes of aggravation of their distemper, if a timely remedy were not applied.

We are indebted to Sir Victor Horsley for his kindness in reading our contribution, for the encouragement he has given us, and for drawing our attention to Schieck's work.

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THE CURATIVE EFFECT OF SALVARSAN SERUM IN A CASE OF SYPHILIS.

BY

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HAVING read the interesting article of Dr. Henry Alston in the issue of the BRITISH MEDICAL JOURNAL for February 18th, we applied this treatment to a patient suffering from syphilis in the Lock Hospital, Harrow Road.

It will be remembered that Dr. Alston produced a blister on patients who were suffering from framboesia and were under the influence of salvarsan. He then injected the serum obtained into other patients suffering from framboesia, with excellent results.

The history of the case in which we adopted the same method is as follows:

X. Y., aged 19 years, was admitted into hospital on February 8th, 1911, suffering from syphilis

1. *Genitalia.*—The vulva and anal regions were covered with large vegetating condylomata and mucous tubercles discharging a watery fluid.

2. *Skin.*—Universal areas of raised papular, somewhat scaly, syphilide, the face being also involved; syphilitic alopecia was present.

3. *Glands* of groin and neck discrete, soft, moderately large.

4. *Mouth and Throat.*—Fauces normal; general stomatitis; tongue normal.

The patient was also suffering from scabies.

Date of infection about July, 1910.

Weight 6 st. 2½ lb.

Wassermann + +.

February 14th. The patient's general condition being very feeble she was ordered sulphur baths and inunction of mercury. Three baths and one inunction only were administered.

February 19th. The patient weighed 5st. 8 lb., having lost 8½ lb. The scabies was better but the syphilitic signs were worse. The patient was injected with 10 c.cm. of a serum obtained from a cantharides blister on the abdomen of another syphilitic patient who four days previously had had an intravenous injection of 0.4 gram of salvarsan.

February 24th. Genitalia better, condylomata and mucous tubercles drier. Rash clearing up. Mouth practically well.

February 25th. 15 c.cm. of similar serum were given. After the third bath a good deal of sulphur irritation was noticed; baths were therefore discontinued. Mucous tubercles were now present on the tongue. Weight 5 st. 11½ lb.

March 3rd. 18 c.cm. of a similar serum were administered. Genitalia much better, condylomata flatter and drier. The patient was feeling much better in health.

March 8th. 25 c.cm. of a similar injection from a patient seven days after an injection of salvarsan. Weight 5st. 13 lb.

March 12th. 10 c.cm. of a similar injection.

March 13th. Genitalia much drier, condylomata much flatter, mucous tubercles gone. Rash fading fast, being flat and showing no hyperaemia. Mouth, fauces, and tongue quite well. Glands as before. Weight 6 st. 1½ lb.

Wassermann + ± March 7th.

REMARKS.

The noteworthy features of this case are:

1. The marked improvement in general health and increase in weight as soon as the serum treatment was begun. Previously the patient had lost 8½ lb. during the eleven days she was in hospital in spite of being carefully nursed and tended.

2. The effect on the Wassermann reaction is most striking; a deviation of 15 per cent. (+ +) of complement is reduced to a partial deviation of 15 per cent. of complement (+ ±) in sixteen days; this compares very favourably with any known treatment.

3. In our experience of some 30 or 40 cases of intravenous injection of salvarsan the results of the serum treatment are found as good as those of the drug, while the treatment produces no signs of illness.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

POST-ANAESTHETIC ACID INTOXICATION.

WITH reference to the two cases of post-anaesthetic acid intoxication reported by Dr. Gilbert Brown, I should like to point out that the administration of sodium bicarbonate in large doses, although ideal theoretically, practically never appears to have the slightest effect, or, if any, in the wrong direction.

There is, however, a remedy, tincture of iodine, which appears to quiet the stomach, and, as I have thought, to lessen also the smell of acetone in the breath. I believe that, if it had not been for its use, I should have lost a little patient who had been operated upon for tuberculous glands, and who vomited for four days, gradually getting worse, but who rapidly improved after the administration of single drop doses of tincture of iodine in a tablespoonful of water. I can well remember the smell of acetone in his breath.

Whilst resident in different hospitals I saw several mild cases, but owing to the early administration of this simple remedy I never saw any severe symptoms follow the prolonged administration of anaesthetics.

Not very long ago a rather stout virgin, from whom I removed some caruncles, suffered from severe vomiting, acid breath, etc., on the third day. The first administration

of tinctura iodi mv in a tablespoonful of water was instantly rejected, but I immediately gave her another similar dose, and ten minutes later got her to swallow rapidly a tumblerful of sherry whey, and with repetition of this every hour, and afterwards every two hours, substituting milk and soda water for the whey, she rapidly improved.

No doubt the iodine acts primarily as a sedative to the stomach, but I also think it steadies the poisoned liver cells. After a severe attack of acute alcoholism a similar condition may occur and often yields to a similar treatment.

In pointing out the little benefit derived from large doses of sodium bicarbonate, I must admit having seen benefit follow the washing out of the stomach with alkaline warm water. Diabetic coma is a condition in which acetone is present, and sodium bicarbonate is usually tried, in my experience with no benefit.

Seacombe. F. WILLIAM INMAN, M.B., Ch.B.Vict.

A SUGGESTED OPERATION FOR SUPRAPUBIC DRAINAGE OF THE BLADDER.

THE object of this operation is to provide a channel for drainage of the bladder lined by mucous membrane, and therefore less likely to contract than one formed by ordinary puncture. A prostatic catheter, or a sound with a similar curve, is passed into the bladder, and made to press upon the anterior wall sufficiently to be felt above the pubes. Above this an incision is made and the point of the sound protruded, carrying a small section of bladder wall before it. Silkworm-gut sutures are then passed through the edges of the incision. The protruded bladder wall is then stitched to the skin by fine silk interrupted sutures, the mucous coat not being perforated. Finally, the silkworm-gut sutures are tied. The slightly protruded portion of bladder wall may be left until adhesion has taken place, and then incised for the passage of an india-rubber catheter; or, if necessary, this may be done at the time.

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CONGENITAL ABSENCE OF THE KIDNEY.

THE case of this anomaly reported by Dr. Maughan in the BRITISH MEDICAL JOURNAL for January 28th, leads me to record the following case:

M. L., aged 75, a widow who had had two children, was admitted into the Suffolk District Asylum on February 19th, 1908, in a state of senile dementia, and died on March 20th, 1908, from acute bronchitis.

The necropsy showed no evidence of any previous abdominal operative procedure. The right kidney was very large and prominent occupying a position considerably anterior to the usual site. No trace of a left kidney, its vascular supply, or ureter could be found, nor any evidence of a ureteric attachment to the bladder on this side. The vascular supply of the right kidney was dissected out before removal of the organ, and consisted of two arteries about equal in size, arising directly from the aorta, and two veins also of about similar calibre entering the vena cava separately. The capsule of the hypertrophic organ (weight, 222 grams) was somewhat adherent in places, but otherwise it was healthy, presenting an unusual depth of cortex. The attachment of the right ureter to the bladder was normal. There was a fibroid about the size of a marble attached to the fundus of the uterus, and the left ovary was replaced by a thick-walled cyst about the size of a walnut containing pale yellow fluid and anchored by a slender pedicle 6 in. in length. The left ventricle of the heart was considerably hypertrophied. The urine, tested a few weeks before death, was found to be normal.

Suffolk District Asylum, Melton. STEPHEN G. LONGWORTH.

FATAL CASE OF MELAENA IN THE NEWLY BORN.

THE following case of melaena neonatorum, which occurred in my practice two years ago, resembles the case reported by Dr. W. J. Lord in the JOURNAL of January 14th, 1911, p. 83

On December 5th, 1908, I attended a woman in the country in her confinement, and, after rather a difficult labour, I delivered with forceps a girl well developed and apparently healthy, weighing 8 lb.

On visiting the house the next morning the nurse told me that the child had vomited a small clot of blood just staining the linen. In the evening I was called again, as the child was vomiting blood and passing dark, jelly-like clots of blood per rectum. Every time the child strained she evacuated quite large clots of blood, and continued to do so until she died at 1.30 a.m. on December 7th, about forty hours after birth.

I did not perform a *post-mortem* examination, unfortunately. The mother stated that her first child had died very young some years previously; the cause of death I do not remember. The parents both appeared to be strong and healthy people, and have since removed from the district.

My father, Dr. P. W. Rolston (R.N., retired), when practising in Manitoba, had about twenty years ago a case of melaena in a child which died within a week of birth.

CECIL MICHELL ROLSTON, M.D., C.M.
Duncans, Vancouver Island, B.C.

Reports
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

THE SEAMEN'S HOSPITAL, ROYAL ALBERT DOCK.

A CASE OF EXTENSIVE PLEURAL EFFUSION.

(Reported by L. ERASMUS ELLIS, M.D.Brux., M.R.C.S., L.R.C.P., House-Surgeon.)

THE patient in the following case, a Zanzibar native, aged about 35, a seaman, was admitted with a history of having been ill on board for some six days. During this time he had complained of pain in the right side of his chest, accompanied by cough. No history of any past illness or of any tropical disease was obtainable.

State on Examination.—The patient's breathing was obviously distressed, the respirations numbered 28 to 30 per minute, and were very shallow. The heart's action was laboured, the beats 100 to the minute, and the apex beat was in the fifth intercostal space, 1½ in. outside the nipple line. The right side of the chest was absolutely dull and board-like up to the clavicle, with practically no respiratory movements nor breath sounds. The temperature was 98°.

Paracentesis.—A diagnosis of pleural effusion having been made, I inserted a trocar and cannula into the pleural cavity, through the seventh intercostal space, in the posterior axillary line, and siphoned off fluid which on careful measurement proved to be 8½ pints in quantity.

This fluid was dark and blood-stained, and on bacteriological examination proved to be sterile.

While withdrawing this effusion, I watched the patient's condition carefully, in the expectation that he would show some signs of distress. This, however, was not the case, and he suffered but slightly from cough. It was, therefore, possible to withdraw the whole quantity at once.

Result.—The patient was immediately much relieved; the heart came back towards its normal position, the apex beat being in the nipple line at the end of the operation; his general condition was also greatly improved.

A somewhat strange feature about this patient's symptoms was that he had pain in the right deltoid muscle; it was immediately relieved on the removal of the fluid from the chest.

The patient suffered from a slight cough, and brought up a certain small amount of expectoration. This, on being examined, proved to contain tubercle bacilli. Other signs of tuberculosis, however, were not marked.

In conclusion, I wish to tender to Sir Patrick Manson, under whose care the patient was admitted, my thanks for allowing me to publish this note upon it. Owing to the extraordinarily large amount of the effusion, it may be of some general interest.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

OXFORD AND READING BRANCH: OXFORD DIVISION.

A MEETING was held on March 17th, Dr. TURRELL in the chair.

Cases, etc.

Mr. H. P. SYMONDS (Oxford): A case of *Plastic surgery*. He showed a man on whom he had performed a Tagliocozzian operation for an epitheliomatous ulcer of forearm, taking a flap from the chest wall, and separating it on the tenth day; the resulting union was satisfactory. Mr. DODDS-PARKER (Oxford): A case of *Hernia cerebri*, the result of a gunshot wound in the back of the head on January 15th. The patient, a boy aged 7, was shown with the brain protruding and pulsating through a hole 2 in. square, just above the external occipital protuberance. He had been brought in collapsed and apparently dying. The parts were painted with 1 per cent. solution of iodine in alcohol; and, though he had lost brain substance to the amount of a Tangerine orange, his condition had steadily improved and was wonderfully good. There was evidence of damage to the ocular-reception centres, but his sense-memory had to a great extent recovered. Dr. BOISSIER (Banbury) sent the record of a case of *Pneumothorax* and emphysema of head and neck and upper part of chest walls in a child aged 1½ years. This condition developed within twenty four hours after the onset of the illness, which was characterized by dyspnœa and rapidity of the heart's action. No cause could be discovered, and the child rapidly sank within two hours of being seen. Puncture was performed, but without relief. On *post-mortem* examination, the cause was found to be a small pointed bony exostosis growing from the neck of the fifth rib and perforating the trachea at the bifurcation. Dr. COLLIER (Oxford) recorded a remarkable recovery in a case of *Pyaemia complicated by endocarditis and pericarditis and nephritis*. The patient, a man of about 35, had been treated with salicylates without success, and pyaemia affecting the right knee-joint and sterno-clavicular articulation was diagnosed. The urine was solid with albumen, and an extraordinary musical cardiac murmur (systolic) could be heard some feet away from the patient. The joints were laid open and drained, and a complete recovery ensued. It was noted that alcohol was given in only very small doses in this case. It was an example of the difficulty of prognosis in acute diseases. Dr. CROLY (Charlbury): A case of *Incarcerated uterus*, with haemorrhage into the bladder. A woman aged 30, four and a half months pregnant, presented an abdominal swelling, with general oedema and scanty urine. The catheter drew off 113 oz. of urine, followed by blood; but a swelling could still be felt through the abdominal walls and also per rectum. Labour pains commencing, the patient was anaesthetized, but sank under the anaesthetic. *Post mortem* the uterus was found incarcerated in the pelvis, and the swelling was found to be the bladder full of blood clots. Dr. CRUICKSHANK (Eynsham) related a case of *Foreign bodies in the rectum* which illustrated the aphorism, "When in doubt, examine the rectum." A girl, aged 16, was seized with abdominal pains, mainly in the left iliac region. There was constipation, but no sickness or distension. Calomel, grain ½, was ordered every hour until the bowels acted; nothing more was heard of the patient until two days later, when he was called to see her again, and found her very ill, with distended abdomen, and a temperature of 102.5° F. Watery stools, with blood and mucus, had resulted from the calomel treatment. Dr. Cruickshank inclined to the diagnosis of colitis, but before leaving examined the rectum, and found a large mass of wood impacted above the sphincter; this he removed with difficulty by douching, and found it to consist of many dozens of wooden matches. The specimen, filling a large pickle-bottle, was exhibited. The girl had for the last six weeks been eating matches, apparently without their heads. In the discussion which followed, a case of glass-eating was recorded, and another of impaction of ink-bottle in the rectum. Dr. DUIGAN (Oxford) gave an account of *Extensive injuries* found *post mortem* in a man who had been run over by a brewer's van. The pelvis was fractured through the rami of the pubes and ischium on both sides, the bladder being torn. The liver and spleen were lacerated, seven or eight ribs fractured on both sides, together with a fracture of the sternum. The lungs were lacerated by the fractured ribs, but the most remarkable injury was that of the heart, which was torn away from its basal attachments, the big vessels being severed through. Dr. GIBSON (Oxford) recorded a case of *Angeio neurotic oedema* in a woman of 58. The attacks had occurred since childhood, lasting ten to fourteen days; they were characterized by vertigo, swelling of various parts of the body, sickness, and scanty urine. The blood pressure was increased during the attacks, which were initiated by drowsiness and salivation. The extreme violence of the vomiting was a noticeable feature. Dr. GOOCH (Oxford) described a *post-mortem* examination in which there was found a *Round worm*, occupying 2 in. of the bile duct; thence it was traced up the pancreatic duct, its head lying in the duct of Santorini. The patient had undergone an operation for acute pancreatitis, but collapsed soon after. Dr. GOOD (County Asylum) described a case of *General paralysis*. After an attack of right hemiplegia the patient lost sensation of that side of the body. A year later he was found one day to have eaten the first finger of the right hand, and the last phalanx of the thumb; he had also commenced eating the middle finger. Three days later there was pain felt in dressing the hand—evidence of returning sensation. He died shortly after. Dr. GRAHAM (Brill) recorded a case showing the value of *Antiseptic treatment*. A man of 50 had gangrene of the foot, necessitating amputation below the knee; the urine contained albumen and sugar. Three days later the stump showed signs of sloughing, and a second amputation was considered; but under persevering treatment with mercuric iodide, the flaps became healthy, and a good stump resulted; the patient living for two years after. Dr. HAYWARD (Abingdon) described what was thought to be *Nuclein poisoning after parturition*. The patient was a primipara, who, seven days after a normal delivery, had a rise of temperature (103°F.), with distended and tender abdomen, and vomiting. There was no apparent cause of sepsis, and the symptoms subsided after uterine douching. The midwife informed Dr. Hayward that the patient's husband had connexion with her on the seventh day, and Professor Ritchie had suggested that the symptoms were due to nuclein poisoning, the nuclein being contained in the heads of the spermatozoa. Dr. NEIL (Warneford Asylum) described the discovery *post mortem* of a *Filament of whale-bone in the right heart* of a middle-aged insane man in the Macclesfield Asylum. It was 6 in. long, and lay in the right auricle, being attached by organized blood clot to the tricuspid valve; it was the thickness of a knitting needle. Death was not due to heart disease, and the man had apparently been none the worse for the foreign body. The whalebone was a fragment of a sweeping broom; the patient had swallowed it. It lodged in the oesophagus, worked through into the left innominate vein to the superior vena cava, and so to the right auricle. Mr. STYLE (Moreton-in-Marsh) recorded the successful *Removal of a large gall stone impacted in the ileum*, 10 in. above the ileo-cæcal valve. The stone weighed 195 grains, and was 1½ in. × 1 in. The case was an example of the remarkable vitality of the aged, the patient being an old woman of 78. Mr. WHITELOCKE (Oxford) gave an account of a case of *Acute volvulus of the sigmoid* in which he performed colostomy on three occasions. The symptoms returned six months after the first operation, and the fourth day after this second operation the stitches gave way during a night attack of sickness, allowing the escape of the intestines into the bed. They were carefully cleansed and returned, the wound being closed by through-and-through sutures, and the patient left the hospital quite well a month later. Two months after he returned for the third time, and sank nine days after operation. The sigmoid was found to be enormously dilated, and Mr. Whitelocke considered that he should have excised the bowel on the first occasion. At the conclusion of the agenda Dr. COLLIER showed the chart of a patient (an undergraduate born in India), which recorded a *Fall of temperature through 10° in thirty-six hours*. The pyrexia was evidently malarial, as the malarial parasite had been found in the blood. The

highest temperature was 105° F., and thirty-six hours later, after 15 grains of quinine, it fell to 95° F. The highest pulse rate was only 80. A discussion ensued on subnormal temperatures, several members with an experience of malaria expressing the view that the higher the temperature during the attack the greater the fall afterwards. Dr. Collier's patient had only spent the first eighteen months of his life in India, and had not suffered from malaria in infancy. His age was 20

Reports of Societies.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Medicine.

Friday, March 10th, 1911.

Sir John Moore, President, in the Chair.

Paratyphoid Fever.

Dr. G. Peacocke described three cases which occurred among the nursing staff of a hospital in November, 1910. The symptoms were similar in all cases, and closely resembled those of enteric fever. Rose coloured spots were present on the abdomen in two cases, but in none was the spleen palpable. Convalescence was in all cases prolonged. The agglutination test with Eberth's bacillus was negative in all the cases, but clumping occurred with a bacillus isolated from the urine of one case. This bacillus was subsequently proved to be *Paratyphoid A*. Dr. Scott said there was a peculiar condition in which the clumping consisted only of two or three bacilli, and in which he always felt in doubt as to whether he should call the reaction positive or negative. When such clumping with typhoid bacilli occurred, further investigation often proved the case to be one of paratyphoid fever. Dr. Day said that on making an examination of the blood in the mild cases which first seemed to be typhoid, one often eventually found them to be paratyphoid. He did not think that paratyphoid was necessarily a mild disease, and mentioned the case of a man who went from bad to worse, and finally died from this disease. Dr. O'Kelly said he had a case of paratyphoid in which Peyer's patches were inflamed but not ulcerated; but on the ileo-caecal valve there were very deep ulcers. Dr. Bewley mentioned three cases in young men who were brought into hospital. In one of these there was profuse haemorrhage. Paratyphoid was much commoner than it was thought to be.

Diabetes Mellitus.

Dr. Crofton, in a paper on the etiology and treatment of diabetes mellitus, said that the removal of the pancreas in animals produced a complete picture of diabetes, and in diabetes lesions of the pancreas were frequently found. Since the pancreas was induced to secrete by the hormone secretin, absence of it would lead to glycosuria. The absence of this substance would account for those cases of diabetes in which the pancreas was found normal. All cases of true diabetes were due to functional or organic disease of the pancreas. Absence of secretin was due to inflammation of the intestinal mucous membrane produced by microbes, and a common source of the infection, amongst others, was pyorrhoea alveolaris. If the lesion was in the pancreas it might be due to blocking of the ducts, to spread of microbes from the intestine, or to infection of the gland through the blood stream. These considerations of etiology gave two lines of treatment which were complementary. The first was the removal of the infection by specific means—namely, by inoculation with vaccines. The second, the replacement of the absent substance—namely, secretin, or co-ferment, or both. The co-ferment could be obtained commercially as Hormonadin. By these means he had obtained marked improvement in many cases, while the patient was always kept on the ordinary full diet. He did not think a "cure" was possible in most cases, as the essential tissues were destroyed, or too badly damaged to recover, when the patient came under treatment. But he did think it possible to enable a patient to live an ordinary life on an ordinary diet and to prevent the disease progressing. Dr. Moorhead said the treatment of diabetes mentioned by Dr. Crofton was built up by hypothesis based upon hypothesis. As regards secretin, he had given the drug a fair trial, and did not believe it to be of any use. Dr. Crofton laid special stress on the fact that his patients improved on the extracts, and were given a full diet. The speaker could not see where was the improvement, considering the so-called improved patients passed more water with a greater percentage of sugar. A mere statement by a patient that he felt better was worthless. Professor Collingwood said as regards Cohnheim's experiments it was possible that they were due to bacterial invasion. There was a further action of secretin which had been neglected. If pancreatic ferments were mixed with secretin these ferments were activated by the fact that secretin had come in contact with them. Dr. Kirkpatrick had tried secretin in several cases, and could not say there was any satisfactory result. But a patient who continued to lose weight under secretin increased in weight by 5 lb. with Dr. Crofton's extract, and no longer complained of thirst or hunger. His experience of the drug in other cases justified his continuing its use. Dr. Winter agreed in this view. The President referred to the uses of codeine and liquid extract of sagrada. The former he regarded as more useful than any ferment.

LIVERPOOL MEDICAL INSTITUTION.

Thursday, March 23rd, 1911.

Dr. T. R. Bradshaw, President, in the Chair.

Rheumatic Fever and Chorea.

Dr. R. J. M. Buchanan, in a paper on the pathogenesis and treatment of rheumatic fever and chorea, considered in some detail the researches on the bacteriology of these diseases, and concluded that the organism described by Poynton and Payne was the cause. Rheumatism seemed to him a lingering process with exacerbations resulting from the presence of the infective agent, and hence the essential object in treatment should be to increase the resistance of the patient. For this purpose he had used a vaccine made from a short streptococcus obtained from the blood of a patient suffering from rheumatic endocarditis. Some 20 cases had been treated in this way. He advocated such vaccine treatment in early cases, and considered that it might have a favourable action even on endocarditis. In more chronic cases it was useful for the joint affections and might prevent relapses. The President remarked that the bacteriology of rheumatic fever was very uncertain, and he did not consider that the causal nature of the organism of Poynton and Payne had yet been proved. Much of the improvement seen in Dr. Buchanan's cases might be due to the rest and general hygiene of the hospital. He had extensively used the salicylates and had not encountered any bad results, with the exception of vomiting in children; this he found ceased if the acid was substituted for the sodium salt. Dr. Percy Marsh emphasized the importance of treating seriously rheumatism of the muscles and fasciae in children, since the manifestations of joint rheumatism were often slight. Neglecting to do so in the case of growing pains was the cause of many hearts being permanently crippled. He had treated 10 cases with the *Streptococcus rheumaticus* vaccine; of these, 9 had improved considerably under the treatment, but in 3 relapses had occurred within a few weeks of leaving the hospital. One case of chorea had shown no improvement, and had, in fact, developed endocarditis whilst under treatment. The usual dose given was 10 millions. Dr. Murray Bligh, working on the value of the von Pirquet tuberculin reaction, had found it invariably positive in cases of chorea. He had, in fact, never seen a case of chorea in which the tuberculin reaction was not positive. He recalled the statement of Dr. R. W. Philip that chorea was not uncommonly associated with tuberculosis. Dr. J. Hill Abram doubted the correctness of the premisses in Dr. Buchanan's work. Dr. E. T. Davies alluded to the cases of so-called imitation chorea. Dr. Macalister held that there was little doubt as to the infective character of chorea, and related several instances where the disease had apparently been directly conveyed from one child to another. Regarding the relation of chorea to acute rheumatism he felt that there was some doubt, and referred to a paper previously published in which he pointed out that the toxicity of the blood plasma

in chorea was great to white blood cells taken from healthy children, whereas the blood cells of children suffering from chorea having attained some immunity were less influenced by it, and he thought that if the diseases were due to identical poisons the cells of rheumatic patients ought to be as immune as those taken from people suffering from chorea. He regarded the salicylates as specifics for acute rheumatism. He referred to a paper which he had published in 1902 in which he stated that he regarded sodium salicylate as almost a chemical test for acute rheumatism, and that those cases which did not respond to it were really to be classed among the rheumatoid fevers. Dr. Macalister also referred to the eosinophilia which was so constantly present in chorea, but never present in rheumatic fever, a point which marked another distinction between the two diseases; he also directed attention to his experience that this blood condition remained for some considerable time after the disease was apparently better, and that relapses were very apt to occur so long as it existed, and consequently he made a practice of keeping his patients in hospital until the blood became normal.

CHELSEA CLINICAL SOCIETY.

Tuesday, March 14th, 1911.

T. W. PARKINSON, M.D., President, in the Chair.

Annual Clinical Debate.

THE subject chosen for the debate was *The treatment of colitis*, in reference to which Dr. HALE WHITE said that the first point to decide in colitis was whether the attack was primary or secondary. The cause might be injury or inflammation in a neighbouring part, or a septic fever, or Bright's disease, absorption of pneumococci, malignant disease, or appendicitis. In the latter case the really appropriate treatment for colitis, appendicostomy, was rendered impossible. In primary colitis the important thing was to keep the bowel empty. Whether it was advisable to inoculate as well was a debatable point. If this treatment was followed, the inoculation should be from a culture of the dominant microbe; this was not always easy to find, and the patient often got well while it was being discovered. Muco-membranous colitis was almost always the result of constipation. Here, again, the treatment was to keep the bowel empty; this was best effected by a light peptonized diet and castor oil. The principle of the Plombières treatment was just the same, and usually very effectual, though perhaps in a neurotic patient it was liable to keep the subject rather prominently before the mind. Regular abdominal massage by a properly trained nurse often did good, but electricity the speaker found useless. When enteroptosis was present support should be given by suitable stays. Diet did not seem to matter. There were two opposite forms of treatment, both apparently successful. One consisted in a bulky diet, the other in one which left practically no residue. Opium should never be given if it could be avoided. For the more severe cases appendicostomy gave the best results, but in membranous colitis it was well to avoid it if possible, on account of the nervous element in this form of the disease. Ulcerative colitis was due to a variety of organisms—coli, streptococci, and pneumococci. A diet of milk and eggs was most suitable in these cases, and opium might sometimes be needed to relieve the pain. Intestinal antiseptics were sometimes useful, but not always, and there was often a relapse after vaccine treatment in two or three months. In this case appendicostomy should be performed, and in severe cases earlier. It should not be forgotten, too, that in these relapsing cases the micro-organisms might have got into the blood, and that the condition might have become general instead of being merely local.

Dr. ROBERT HUTCHISON, speaking of primary colitis, said that between the different forms there was no hard and fast line; one often passed into another, or they might coexist. In muco-membranous colitis with neurasthenia it was difficult to distinguish cause from effect, and both conditions must be treated. In regard to diet, he favoured the French system of avoiding all residue as far as possible, and especially the exclusion of cellulose, which was never digested by these patients. Peptonized milk, as an exclusive diet, was very serviceable, but sour milk was generally a failure. Aperients were useful in all cases, but they should be chemical as distinct from mechanical aperients. The most suitable were castor oil or senna. Astringents generally should be avoided, but were sometimes indicated in chronic catarrhal cases, combined with antiseptics, such as bismuth salicylate or zinc sulphocarbolate. Opium, of course, should be avoided, except in severe cases of pain and tenesmus. For the pain due to spasm in muco-membranous colitis belladonna was most useful. Treatment by intestinal antiseptics he did not consider sound either in theory or practice. Of injections, he had found the best to be warm olive oil and a normal saline. Some of the silver salts were occasionally helpful if the disease were sufficiently localized. Operation, from the physician's point of view, might be directed either to diverting the passage of the bowel contents by throwing the colon out of gear, to facilitating the cleansing of the bowel, or to the removal of sources of infection, as in appendicectomy. Colostomy should be reserved for the gravest type of cases, but in some it might be the only means of saving life. Though appendicostomy was very successful, relapses often occurred. It was most useful in ulcerative cases, but not often advisable in muco-membranous cases. As to specific remedies, ipecacuanha had often a very striking effect in ulcerative colitis, stopping the haemorrhage and healing the ulcer. He was rather sceptical as to the value of any form of vaccine treatment, owing to the difficulty of isolating the organism which was the actual cause of the symptoms.

OXFORD MEDICAL SOCIETY.

AT a meeting on March 10th, Mr. ANGLIN WHITELOCKE in the chair, the following were among the exhibits and communications:—Dr. WATERS: A case of *Mitral stenosis* in a man of 21 who had had chorea at an early age, and again when aged 12. The remarkable feature was an antero posterior curvature of the spine, which had been becoming much more marked lately. The case was shown especially to elicit opinions whether the spinal and heart conditions had any connexion with one another. In the discussion Dr. MALLAM mentioned a patient with lateral curvature of the spine in whom he had watched the development of mitral stenosis, and Dr. GIBSON mentioned the views of certain French writers that there existed a close relation between thoracic deformity and enlargement of the heart. Mr. A. P. DODDS-PARKER: A case of *Tertiary syphilis* which he had recently treated by the intravenous injection of salvarsan. The patient had had no inconvenience from the injection, and had expressed himself as markedly improved in general health. Mr. E. C. FOSTER recorded a case of *Pyelitis* in a woman aged 30, which came on two months after the birth of a child, and recurred on three occasions, two days before the onset of menstruation. Mr. COUNSELL related the history of a postman, aged 22, who had consulted him for laryngitis and sore throat. He had not suspected anything more than an ordinary cold, and had advised the patient to stay indoors until his voice became better. He improved a little, but six days after first being seen he was called to see him in great difficulty of breathing, and apparently moribund. He recovered, but the same day had another attack, and died. There had been no laryngeal obstruction necessitating tracheotomy. A culture of the throat showed the presence of streptococcus. Subsequent inquiry convinced the speaker that death was due to *Diabetic coma*. Dr. GILLETT related the history of a patient, a middle-aged woman, who had suddenly been attacked with *Haemorrhage from the bowel*, and symptoms necessitating surgical interference. At the operation the greater part of the transverse colon was found to be very much thickened and dark red in colour. The transverse mesocolon had petechial haemorrhages in it. As the patient had mitral regurgitation the intestinal condition was thought to be due to infarct, and a short circuit was performed. The patient, however, did not recover. A *post-mortem* examination was performed but no evidence of infarct was found, either by dissection of the vessels or by microscopical examination. The localization of the affection to the middle part of the transverse colon was very definite. The mucous membrane and submucous layer of the intestine were necrotic, and

showed the invasion of organisms from the lumen of the bowel. The muscular layer and peritoneum were in a state of acute inflammation. Dr. Hayward read the history of a male patient, aged 58, who consulted him for what he found to be an *Aneurysm of the aorta*. There was stridor, dyspnoea, pain in the right arm and shoulder, and dilatation of veins, and some oedema of the right side of the neck. There was pressure on the right bronchus. Thirty years previously the patient had consulted Sir Jonathan Hutchinson for leucoplakia, who suggested that it was due to tobacco smoking, and advised abstention from it. No history of syphilis could be ascertained. The aneurysm had begun while mountaineering, when, during a climb, he suffered from a sudden pain in the chest, became very short of breath, and suffered from marked collapse. The patient had persevered for six weeks in a rigid Tufnell treatment, which was effective in relieving all symptoms, but had left some wasting of the upper arm muscles, which had subsequently recovered their power. Later the patient developed an epithelioma of the palate, for which he was operated upon. The operation, which had been very difficult, was successfully performed; the patient made a good recovery, and was at the present time in good health. *X*-ray photographs showed the presence of a saccular aneurysm of the second part of the aorta.

UNITED SERVICES MEDICAL SOCIETY.

At a meeting on March 8th, Colonel Sir David Bruce in the chair, the following were among the communications: Lieutenant-Colonel P. J. Freyer, I.M.S.(ret.), in a paper on the symptoms and diagnosis of *Stone in the kidney and ureter*, laid special stress on the value of radiographs of the parts as a precedent to operation; it was only in exceptional cases and in those of pure uric acid calculus that one would be justified in dispensing with them. Dr. Ironside Bruce afterwards showed a number of radiographs in point, and emphasized the necessity for always taking the picture in a standard position. Colonel H. Hathaway, A.M.S., in a paper on *Ambulance transport*, after pointing out that there was likely to be a shortage of horses in future campaigns on account of the large growth of motor transport, said it would be necessary to provide motor transport for wounded in all except the immediate front, where it would still be necessary to have horse transport on account of the difficulties of getting motor wagons over rough country away from roads. The use of motor transport would have many advantages, not only in the more rapid clearing of the front, but also in the greater comfort to the wounded and quicker attention to their needs in the better adapted hospitals of the rear. He discussed the various types of motor vehicles at present in use, and suggested that the most economical method of use would be to remove the body, and replace it by a platform adapted for the carriage of wounded lying down or sitting up. If large users of motor transport in peace time were subsidized, it might be possible to arrange that they should have their chassis built to standard sizes which in war time would fit bodies kept in mobilization stores. Major Crofton Atkins, A.S.C., said that probably the best solution of the problem would be the subsidizing of cars with a standard chassis; these would be registered, and would be available for military purposes in case of mobilization. It was doubtful if motors could be much used away from roads, but on roads there was no doubt that they would add greatly to the comfort of the wounded, as well as to their more rapid removal to the rear.

ULSTER MEDICAL SOCIETY.

At a meeting on March 2nd, Sir Peter O'Connell, President, in the chair, Dr. Hicks showed two tubal fetations removed successfully by operation, and gave short histories of the cases. Dr. Mitchell read a short paper based on 110 consecutive operations for ulcer of the stomach and duodenum, all cases of perforation or of cancer being excluded. Haemorrhage had occurred in about 40 per cent. of the cases, local hyperaesthesia in only 3 per cent. As regards haemorrhage he recommended the subcutaneous use of normal horse serum. In 19 cases he removed the appendix.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

At a meeting in Sheffield on March 17th, Dr. J. B. Hellier, President, in the chair, the following were among the exhibits:—The President: A *Fetus with webbed extremities* and complete absence of the kidneys, ureters, and bladder. Otherwise it had apparently developed normally to about the eighth month. Mr. Cuff (Sheffield): A hairpin removed from the bladder by vaginal cystotomy. Dr. Gemmell (Liverpool): A *Compound teratoma* of the ovary, and preparations and photographs connected therewith; in external appearance it simulated a small fetus with head, back, and limbs. On dissection the portion resembling the head was found to be an oval, egg shaped body, calcified all over; at its broader end it showed indications of occipital and parietal sutures. This closed cavity contained a yellowish material, of the consistency of gruel, containing cholestrol and a substance resembling "protagon" or some similar brain lipoid. Other portions of the ovary contained thyroid gland tissue of an adenomatous type, and calcareous nodules and masses, but without any definite arrangement resembling fetal limbs. Dr. Walls (Manchester): Two cases of *Ectopic gestation* accompanied by inflammation of the tube of the opposite side. In both cases it was necessary to perform double salpingo-oöphorectomy. Mr. Miles H. Phillips (Sheffield): A case of *Chorion-epithelioma of the Fallopian tube*. In September, 1908, the patient, a 3-para of 28 years, had the left tube removed for what appeared to be a tubal gestation. Its inner end was enlarged to form a cylindrical mass measuring 3½ in. by 1½ in. by 1½ in.

On section it appeared to consist of organizing blood clots; there was no trace of an ovum. Microscopical examination of peripheral portions of the tumour showed typical chorion-epitheliomatous tissue deeply invading the wall of the tube. The uterus was then explored, with a negative result. Six weeks later a recurrent mass could be felt in the left broad ligament, and an ovoid swelling of purplish colour had appeared in the anterior vaginal wall. The patient had become much thinner and paler. Total hysterectomy, with removal of the apparently healthy right appendages and left ovary, was then (November, 1908) performed. At the same time a nodule (1 × 1 × ⅔ in.) was excised from the upper wall of the bladder, and another (1 × 1 × ½ in.) from the anterior vaginal wall. No attempt was made to remove a nodular mass situated at the root of the mesentery. The recurrent growth and the two metastatic nodules consisted largely of blood clot, but all showed typical chorion-epithelioma.

The patient made a rapid recovery from the operation, and steadily gained weight and strength. At one time there was a cough with blood-stained sputum, but no physical signs of growth in the lungs were detected. Ten months later the mesenteric swelling had quite disappeared, and in March, 1911, two years and four months after the radical operation, there were no signs of recurrence in the pelvis or elsewhere.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

At a meeting on March 3rd, Dr. Phineas S. Abraham, President, in the chair, Dr. Harold Pritchard read a paper on the present position of *Vaccine-therapy*. He said that a slight local reaction was the end to be desired after an initial dose of vaccine; if the size of the subsequent doses was properly gauged, and the interval of administration carefully fixed, there ought to be no subsequent reaction. A general reaction should never be obtained. A reaction depended on these factors: (1) Size of dose; (2) virulence of vaccine; (3) reaction of patient. The first factor was the only one under complete control, so that it was impossible to lay down rules for the administration of vaccine applicable to every patient. Generally speaking, the more acute the case and the more general the infection the smaller should be the dose. Dr. J. L. Bunch thought the immediate effects of treatment by vaccine could be more readily studied in diseases of the skin than in diseases of internal organs. He did not himself feel inclined to dispense with opsonic estimation, as it was the only available method of estimating the anti-bacterial defences of the body. Mr. H. Wansey Bayly thought the method employed in the preparation of vaccines specially important. It was best not to expose

them to a temperature above 55° C. Personally he did not use heat at all, but sterilized them with 1 per cent. carbolic in saline. He had seldom noticed either local or general reaction except with typhoid vaccines and occasionally gonococcal vaccines. He agreed that the opsonic index could not be considered a reliable method of estimating immunity or for controlling vaccine treatment; also that gonococcal vaccines varied greatly in virulence, and therefore the initial dose should be minimal. His experience of pneumococcal vaccine in the treatment of acute pneumonia, though limited, had been encouraging. He had, like Dr. Pritchard, not been successful in the treatment of pyorrhoea alveolaris with vaccines, nor in acute gonorrhoea. Mr. MCADAM ECCLES said that in many chronic affections the effects of vaccine were truly marvellous. For *coli* infections of the urinary tract vaccine-therapy was very helpful. Dr. ABRAHAM said he admitted that vaccine-therapy constituted an enormous advance, but in his own experience many results had been the reverse of satisfactory. For instance, in acne, six of the worst cases he had seen had been made worse by vaccines; two of these were disfigured for life by the treatment. Acne could be cured by common sense and rational treatment, external and internal. As regards boils, he failed to see why any case should be treated by vaccines. Many cases of boils treated by vaccines had recurred.

BATH CLINICAL SOCIETY.

AT a meeting on March 3rd, Mr. F. LACE, President, in the chair, the following were among the exhibits:—Mr. FORBES FRASER: A case of ascites in a woman, aged 58, cured by *Drainage through the femoral canal*. Dr. RUPERT WATERHOUSE: A specimen of *Cysticercus cellulosae* removed from the subcutaneous tissue of a man, aged 28 (also shown), who had been suffering from headache, vomiting, optic neuritis, fits, and paralysis of the right external rectus muscle. There was pronounced eosinophilia of the blood and cerebro-spinal fluid and twenty-seven cysticerci could be discovered in different parts of his body and limbs. The optic neuritis had completely disappeared and the other symptoms were subsiding. Mr. PAGAN LOWE, in a paper on *Metatarsalgia*, said this disease was of fairly common occurrence. Many patients labelled gout or rheumatism were really suffering from this disease, which he considered to be a pressure neuralgia, although in one-third of the cases there was a history of injury. He divided the cases into three classes according to their severity, and the treatment depended upon the degree present. He found that in the first degree it was sufficient to abstain from any action which produced pain and to modify the boot so as to invert the foot. That was readily done by adopting the wedge-shaped sole. In the second degree, in addition to the measures already enumerated the sole of the boot should be thickened about ½ in. behind the heads of the metatarsal bones, and a band of hospital strapping worn round the instep. Hot and cold douches or the local application of belladonna were very useful when the pain was severe. In the third degree he found that excision of the head of the fourth metatarsal bone was the only treatment.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.

AT a meeting on Tuesday, March 7th, MRS. DICKINSON BERRY, President, in the chair, Miss STONEY, M.D., showed 2 cases of *Exophthalmic goître treated by x rays*, and reported on the 8 cases she had shown last year. This completed a series of 25 cases of this disease treated by *x* rays; 18 were definitely much better, 2 had relapsed, 3 had been lost sight of, and 2 had been treated so recently as not to be judged yet. In the 18 that showed marked improvement, the heart condition, if irregular, gradually became regular, and the rapidity came down to something between 80 and 100. The palpitation stopped and sleep returned. The throbbing disappeared, and in many cases the area of cardiac dullness became normal. The nervousness disappeared, and the patients became happy and placid, and put on weight. The irritability and tremor disappeared, the exophthalmos was improved in all, and in 5 seemed cured. The goître was smaller, but had only absolutely disappeared in 2. Miss W. CULLIS, D.Sc., read a paper, illustrated by lantern slides, to show the work that had been done to prove the myogenic nature of the heart-beat. After speaking of the earlier theories of the production of the heart-beat, she gave in some detail the main experiments of Gaskell to prove that the explanation of the heart beat was not nervous but muscular. His work was conducted mainly on the simpler animals, as the tortoise, and received great corroboration by the discovery by Stanley Kent of the auriculo-ventricular bundle or bundle of His. The speaker exhibited many slides showing the alteration in the heart-beat caused by stimulation or section of this bundle, and also its situation and extent both in the frog's and in the human heart. Section of this bundle was followed by absolute cessation of the ventricle. Stimulation resulted in vigorous contraction of the heart which passed in both directions.

Reviews.

PUERPERAL INFECTION.[1]

IT may be said of Dr. LEA that he is a bacteriologist among clinical physicians and a clinical physician among bacteriologists, and we know not which description is the more appropriate. Dr. Lea sets out in italics the proposition that "*all cases of fever during the puerperium, unless clearly attributable to some extraneous cause, should be considered as forms of wound infection.*" He is, of course, not the first person to assert this, but he introduces his readers to a more intimate acquaintance with the infinitely little organisms which take advantage of the breaking down of protective barriers in childbirth to intrude themselves upon the puerperal woman and multiply at the expense of her fluids and tissues. In his second chapter, on definition and classification, it seems to us that, although he mentions Koch, he hardly does him full justice. We wish he had set his face against the confusing practice of inventing new names for old things. It was Koch who first drew a clear distinction between the two conditions then known as "septic intoxication" and "septic infection." Soon for these names were substituted "sapraemia" and "septicaemia," names which were better because shorter. Dr. Lea allows, without condemnation, the words "toxaemia" and "bacteriaemia"—the latter a most awkward word to pronounce. Dr. Lea says, "Much difficulty may be met with in drawing an absolute distinction between the two types of disease, as in every case of septicaemia a variable degree of toxaemia exists." True; but cases are met with of sapraemia without septicaemia, in which, when the putrid stuff is removed, the patient is well within a few hours. In this chapter we encounter an error which we at first thought must be the fault of the printer; but it is so persistently repeated that we cannot suppose it due to defective proof reading. It is the spelling "ærobic" and "anærobic." These misspelt words are derived from the Greek ἀήρ, which cannot possibly be represented by a Latin diphthong; on the contrary, the separateness of the two vowels is often indicated by a diæresis (aër). The author's third chapter shows the gratifying diminution of puerperal mortality and morbidity brought about by Lord Lister's discoveries, and the enforcement of their application by the Midwives Board. Then comes a full, accurate, and up-to-date description of the changes in the female genitalia during the lying-in period, and of the bacteriology of the genital passage under normal conditions. The author shows that organisms indistinguishable from pyogenic organisms are found in abundance in the vagina during healthy pregnancy and normal puerperium.

Dr. Lea next discusses the bacteriology of puerperal infection. He tells us that "the *Streptococcus pyogenes* is the organism most frequently present in puerperal infection, and its causal relation to the disease has been completely established." Further on he tells us that

[1] Oxford Medical Publications. *Puerperal Infection.* By Arnold W. W. Lea, M.D., B.S.Lond., B.Sc.Manch., F.R.C.S.Eng., Lecturer in Obstetrics and Gynaecology, the University, Manchester; Surgeon, Northern Hospital for Women; Assistant Surgeon, St. Mary's Hospital, Manchester. London: H. Frowde, and Hodder and Stoughton. 1910. (Sup. roy. 8vo, pp. 400. 25s.)

"the streptococcus of erysipelas and the organisms frequently found associated with scarlet fever and diphtheria are identical with those present in puerperal infection." The next paragraph begins: "The *Streptococcus pyogenes* manifests extraordinary variations in virulence. Thus, it frequently exists in the genital tract as a saprophyte, whilst in other instances the introduction of even a small number of streptococci on to a wound is followed by severe infection." We believe that Dr. Lea is in harmony with nearly if not all bacteriologists in making these statements of fact. Nevertheless we think it certain that in the future they will be shown to require modification. The bacteriologist may fail to distinguish between (1) the erysipelas coccus of Fehleisen, (2) a streptococcus that produces spreading suppuration of the cellular tissue, and (3) a haemolytic streptococcus that kills the patient too quickly for suppuration to take place. But the human body knows the difference, and Fehleisen showed that his erysipelas coccus bred true: it produced cutaneous erysipelas, and nothing else. We believe Dr. Lea is right when he says: "After labour the gonococcus most frequently produces localized infection of a mild type." Further on he tells us: "In rare instances acute peritonitis has been observed within a few days of delivery, and the gonococcus has been found in pure culture in the pus." Many bacteriologists hold such extensive changes to be the result of a mixed infection, and so, we imagine, would Dr. Lea; but he does not say so.

After the section on bacteriology comes an admirable chapter on etiology. Here we have "Toxaemic infection. Synonyms: Sapraemia, Pure toxaemia, Bacterial intoxication." As to the first of these, "toxaemic infection," which the author seems to prefer, for he puts it in special type, the word "infection" is surely superfluous, for "toxaemia" means that poison is in the blood. "Bacterial intoxication" is plainly incorrect, for the patient is not intoxicated with bacteria, but with poisons formed by bacteria. Dr. Lea says this condition was first clearly recognized as occurring in the puerperium by Matthews Duncan. Duncan, we believe, gave the credit to Koch. But why not stick to Duncan's name, "sapraemia," the shortest, most distinctive, and most expressive of any? The chapter as a whole is one of the fullest and best accounts we know. The author lays stress on the increased danger of infection accompanying frequent examinations, operative delivery, retention of membranes, intrauterine manipulations, and extensive lacerations.

Chapter X is on the "localized infection of the genital tract." It describes the different ways in which the genital canal may be injured in parturition, and the local effects when to these injured parts different microbes get access. The symptoms and diagnosis of the different forms of pelvic inflammation are carefully and well described. The section on pelvic cellulitis might have been more illuminating if the author had studied the cases—which are fairly numerous—in which Americans ignorant of this disease have opened the abdomen and been astonished to find that everything within the peritoneal cavity was healthy.

The next division of the work describes the diagnosis of puerperal infections. The author quotes Boxall's papers, in which he showed, beyond possibility of disproof, that a lying-in woman infected by scarlatina, but protected from septic poisoning, gets scarlatina and nothing else; and that an epidemic of scarlatina in a well-managed lying-in hospital does not in the least raise the morbidity, excepting in so far as it is raised by the scarlatina itself. But Dr. Lea is not convinced. He says "it is generally believed that the presence of a wound predisposes to the development of scarlet fever . . . the rash commences at the vulval orifice and is associated with signs of local infection. . . . It is therefore impossible to distinguish between these cases and puerperal infection of the usual type." We do not think Dr. Boxall's conclusions can be thus dismissed.

In Chapter XII we get to what, from the practitioner's point of view, is the vital question—namely, the prophylaxis of puerperal infection. Dr. Lea's first important proposition runs: "It is therefore certain that in normal labour vaginal douches are unnecessary, the essential feature being to carry out complete antisepsis of the vulva." He discusses very fully the question of india-rubber gloves. He points out that at Basle, where the hot water alcohol method is in use without gloves, the morbidity is at present one of the lowest on record. He recommends gloves chiefly as a protection for the doctor's own hands. He insists on the increased risk of infection involved in operative delivery. Before any operation he says the pubic hair should be cut short, "*or even shaved.*" Does he know any English practitioner who would propose in private midwifery practice to shave the vulva? If not, why mention it? The practice has been followed in a few places in France, with the result of provoking so much angry feeling among the public that it has been soon given up.

After prophylaxis, the next question is treatment. Continuous irrigation of, and steaming, the uterus find no favour with Dr. Lea. Brushing out the uterus (*écouvillonage*), he tells us, is "a most valuable method of treatment, worthy of more general adoption." He has used it for some years. He discusses at length the advantages and disadvantages of scraping out the uterus in puerperal sapraemia, and his conclusion is that "the place of the curette in the treatment of acute puerperal infection cannot as yet be finally decided." Which means that the wise practitioner will not scrape out the uterus—at any rate, as a routine measure—in such cases. There is a possible alternative to brushing or scraping which is not explicitly mentioned—namely, the removal of retained membranes with a forceps capable of grasping. If there is general infection, cellulitis, or local peritonitis, Dr. Lea says that all forms of intrauterine treatment must be avoided. His next section is on "the production of artificial leucocytosis," a modern name for some old methods—icebags, hot fomentations, hot-air baths, etc. Then we come to "general and symptomatic treatment"—a carefully-written and creditable chapter, but containing little that is new. The more recent weapons that we have acquired come in the next section, "On the methods of destroying organisms and neutralizing toxic products." Here we are introduced to collargol, nucleinic acid, saline injections, either into a vein or the rectum—artificial abscess formation. The author has diligently collected the evidence for the value of these methods, but hardly seems to have convinced himself that these are specifics. In Chapter XIV he deals with "Methods for the direct destruction of organisms or toxins." The intravenous injection of formalin or a salt of mercury finds no favour with him. The value of antistreptococcic serum is, he thinks, questionable. He holds that it is not yet possible to form a final judgement on the value of vaccine treatment in cases of general infection. Chapter XV is devoted to the operative treatment—the most active, and some may think the most promising, method. The author begins by laying it down that no operative procedure should be undertaken without clear evidence of local disease. He then describes when and how parametric abscesses should be opened. Next he discusses the treatment of diffuse puerperal peritonitis by incision, irrigation, and drainage. This method, he says, "has proved to be of the greatest practical value, and has most materially diminished the mortality." In connexion with this form of disease the author mentions colpotomy, which he says "should always be performed" when "with the symptoms of peritonitis a definite bulging or sensation of resistance is felt in the pouch of Douglas." It is probably from inadvertence that in the chapter on localized peritonitis colpotomy is not mentioned. The next operation to be considered is hysterectomy. The results, Dr. Lea tells us, are "not encouraging." His conclusion is that hysterectomy is useless as a means of preventing death from septicaemia in the absence of local lesions, in all forms of general peritonitis, and in thrombo-phlebitic infection. The next operation Dr. Lea writes about he evidently wishes he could recommend—we refer to the ligature or removal of thrombosed veins. He says: "If the operation is successful, the results are often surprisingly good." But, alas! in his summing up all he can say is: "It is not possible at present to formulate the precise indications for the operation." If it is to be done, he thinks the most suitable route is by abdominal section; and that it is better to be content with tying the veins on both sides, and not to try and remove them. The book ends with a final chapter containing a general summary of treatment.

This book is not, of course, the last word on the subject. But, so far at least as the English language is concerned, it

is not only the latest, but the most complete. It is a most creditable book. Dr. Lea may be proud of it, and Manchester may be proud of Dr. Lea. It shows wide knowledge, practical research, sober and sane judgement. We hope that as time goes on increased opportunities may enable him to speak with precision about matters which he now leaves in doubt.

REFRACTION.

THE influence of an early training in arts is evident in the scholarly tone of Mr. PERCIVAL'S little book on the *Prescribing of Spectacles*,[2] and we can fully endorse his claim that it is not a slavish summary of the works of others. It is a valuable treatise upon the subject with which it deals which no ophthalmic surgeon can afford to dispense with. At the present day the sight-testing optician is well grounded in the optical principles of spectacles, and the mysteries of decentration and prism effects, and claims to measure errors of muscle imbalance and defect of convergence; it is all the more essential therefore that the profession should possess such a book, and not only possess it but read and comprehend it, even though most of us have not the author's knowledge of mathematical optics nor the same delight in formulae which is evidenced by his publications. The title is a little misleading, for the book would be of no value to the student or the general practitioner wishing to learn refraction; in fact, a casual glance at it would lead many to give refraction up in despair. This being so, certain elementary facts, such as that "accommodation is brought into play by a contraction of the ciliary muscle," et seq., might well have been omitted. Nor are the chapters upon actual sight testing at all equal to the later chapters upon convergence, heterophoria, and kindred subjects. Surely it is better at once to perform a retinoscopy without a mydriatic—a procedure which in most cases gives very accurate results, and thus in a few minutes to find the best correction—than to waste valuable time pottering with a trial case. Again, Mr. Percival advocates the use of a concave mirror in retinoscopy, and does not adequately discuss the relative advantages of concave or flat mirrors. The concave mirror is now rarely used, and is probably less accurate than the plane mirror, which can be conveniently employed at arm's length. Lister's mirror, which gives the illumination of the concave, with the optical properties of the flat retinoscope, is not mentioned; nor is McNab's retinoscope alluded to. We rejoice that the author refuses to accept the absurd notation of cylinder angles recommended by the Naples Congress in 1909, and adheres to the scientific system adopted by the Optical Society in 1904. Mr. Percival appears to place great reliance upon hormatropine, and uses a mydriatic for almost every case. There is no doubt that if all mistakes are to be avoided a mydriatic must be always used, but when subjective sight-testing agrees with a non-mydriatic retinoscopy the chance of error is small, and an occasional slight under-correction of hyperopia is probably better than the routine use of mydriatics. Homotropine is a treacherous friend, and not infrequently less hyperopia will be found after instilling the drug than retinoscopy without a mydriatic gave. Is it a good rule only to correct one-third of the latent hyperopia? Why one-third? Why not all? It is impossible to praise too highly the later chapters of the book, especially that treating of the relationship of accommodation to convergence. The book should be carefully studied by candidates for such examinations as the D.O.Oxford.

We need not do more than chronicle the publication of a new edition of Mr. HARTRIDGE'S handy volume on *The Refraction of the Eye*.[3] There seems to have been a new edition about every second year since the book appeared in 1884, and the publishers state that altogether 33,000 copies have been printed. The author in his preface to this, the fifteenth edition, states that he has spared no effort to make the work more worthy of the favour with which it has been received at home and abroad; it is described as a manual for students; it will be found a useful and trustworthy guide by any medical man taking up refraction work.

The most experienced refractionist cannot fail to pick some hints from Mr. ERNEST MADDOX'S *Golden Rules of Refraction*[4] and the general practitioner who does refraction will find it of great value. Teachers of ophthalmology in medical schools may be advised to place it in the hands of every dresser in the eye departments. It contains much clear, concise, and yet adequate teaching condensed into a few pages. Mr. Maddox's rules embody the most modern ideas of the practice of refraction. He has torn himself away from the older methods, still followed with some additions by the sight-testing optician. We are advised to practise retinoscopy first without a mydriatic, and to do the "fine adjustment" alone with the test glasses and trial frames. The use of Jackson's crossed prisms is mentioned as a valuable means of saving time, and to-day who cannot refract quickly cannot be said to refract at all. Here again we must express some surprise that Lister's retinoscopy mirror is not suggested. Mr. Maddox must have been exceptionally fortunate with his operations for removal of the lens in high myopia, for he appears to give the operation his unqualified approval. Professor Hirschberg, in his recent work on the treatment of myopia, sounds a warning note, and, unfortunately, the most brilliant results may end in retinal detachment and total blindness. These are the only criticisms which we can offer after carefully reading the book. We fail to see how it could be materially improved.

Dr. HEILBORN'S recent work[5] on the significance of ocular hygiene to the State is not likely to be widely read in the United Kingdom, for the special conditions with which it is mainly concerned do not obtain here to any great extent; 116 out of 185 pages of text are devoted to a somewhat tedious treatise upon myopia, its symptoms, classification, and prevention. It appears to be admitted that in the German classical schools, the *gymnasia*, over 25 per cent. of the scholars are myopic. We have no statistics of the prevalence of myopia in British public schools, but probably the percentage at such schools as Eton, Harrow, or Rugby would be nearer 10 than 25. The subtitle of the book is "With Special Reference to the Recruiting Problem," and the author regards the prevalence of myopia in Germany as so serious that he would like to see the State watch officially over all shortsighted individuals from the time they enter school till they leave the army. Dr. Heilborn asserts that the improvements made in school conditions of recent years, and the careful examinations by school medical officers, have not so far resulted in any material diminution of the number of shortsighted children. The only fact which he considers clearly demonstrated is that the myopia figure is inversely proportional to the time children spend in games in the open air. Widmark has stated that in the Swedish schools, as soon as open-air games upon the English system were introduced into the State schools, the myopia percentage steadily dropped. We are unable to agree with Dr. Heilborn that we possess no means of diagnosing myopia under one dioptre in children; a retinoscopist of even moderate experience ought to be able to measure this amount of myopia. The author calls astigmatism a "child of sorrow," tells us that it is rarely possible to correct it at one sitting, and talks of the tiring effect upon the patient, of trying glass after glass, and the long time necessary to obtain a correct result. Surely accurate retinoscopy enables the best correcting glass to be discovered in a very few minutes. The last portion of the book deals very superficially with such subjects as trachoma, accidents, tubercle, toxic amblyopia, and ophthalmia neonatorum. It is rather difficult to determine for what class of readers the book has been written. The facts are known to the specialist, and the author advances nothing new, and the general practitioner would be wearied by the book, which is tedious and full of

[2] *The Prescribing of Spectacles.* By A. S. Percival. Bristol: John Wright and Sons, Limited. 1910. (Cr. 8vo, pp. 159. 5s 6d.).

[3] *The Refraction of the Eye.* By Gustavus Hartridge, F.R.C.S. Fifteenth edition London: J. and A. Churchill. 1911. (Cr. 8vo, pp. 275; illustrations 110. 5s.)

[4] *Golden Rules of Refraction.* By Ernest E. Maddox. London: Simpkin, Marshall, Hamilton, Kent, and Co., Limited. Bristol: John Wright and Sons, Limited. Golden Rule Series No. XII. Third edition. (Demy 32 mo, pp 96. 1s.)

[5] *Die Bedeutung der Augenheilkunde für den Staat.* Von Dr. Franz Heilborn, Breslau. Berlin: S. Karger. 1910. (Roy. 8vo, pp. 198; Abb. 4, M. 4.)

repetition. The school medical officer may find the statistics useful for purposes of comparison.

During the last few years scores of books and card systems have been arranged to facilitate medical book-keeping and the work of the doctor from a business point of view, but very few have been arranged simply to facilitate scientific work. Ophthalmic surgeons may therefore be glad to have attention called to a register for oculists, arranged by diagnoses, published some time ago by Dr. GEORGE HIRSCH of Halberstadt.[6] The conception is excellent, though unfortunately the execution leaves something to be desired. The register contains space for over 20,000 entries, each case being entered as a name or number by which it can be found in the case-book or hospital notes. Each entry is made under its appropriate heading, according to diagnosis, so that one may look up all cases of any special affection. The headings are in Latin, and are very complete, the chief being found in a thumb index at the side of the page. The defect of the book is the inordinate space devoted to errors of refraction—space for 1,600 entries under the head of presbyopia, for instance—while there are only thirty spaces each for cases of detachment of the retina and retinitis, which are far more likely to be referred to. With some improvements in the classification—which can, indeed, be made by the user, the register is likely to prove most useful, especially to teachers of ophthalmology.

FOOD AND FEEDING.

IN *Food and Feeding*[7] Dr. CHALMERS WATSON claims to have devoted "less attention to details of the chemical composition and heat value of food, and more to its influence on the digestion and bacterial processes in the gastro-intestinal tract," which course he believes to be more in harmony with the general trend of modern physiological science as well as of clinical experience. The volume, however, follows the usual description of food and its destiny in the body, its composition, and the daily amount of the various components required, and then goes on to give an account of the kinds of food—for example, milk, animal food, vegetables, beverages, and proprietary foods; there is a chapter also on food preservation and adulteration. Diet at different periods of life is discussed, and after a general introduction on the feeding of the sick, the dietary suitable in various diseases is explained in detail, a number of cookery recipes being supplied. There is a chapter upon special diet cures and on hospital dietaries, which last might be fuller, as the only table given appears to be that of some Scottish hospital, as indicated by the presence of those excellent national dishes, porridge and minced collops. He makes the suggestion that coldness of the extremities and liability to chilblains may depend upon pancreatic defect, and indicate the need for a smaller proportion of carbohydrate food with a larger allowance of meat. He sticks to the old view that red meats are less suitable than white meats in the treatment of renal disease, although recent investigations have shown that the latter have no advantage, at least so far as purins are concerned, chicken containing as much as beef and more than mutton. We are glad to read that "the results of treatment by a salt-free diet in cases of renal disease associated with dropsy have been by no means uniformly satisfactory in the hands of those who have tried this system," for it is too much the fashion for physiologists to speak of disappearance of dropsy on the withholding of chlorides as having been fully established by clinical experience. The following statement, for example, is to be found in Professor McCay's *Investigations on Bengal Gaol Dietaries* (p. 169): "It is generally admitted that by controlling the proportion of sodium chloride in the diet the oedema of Bright's disease can be made to appear and disappear, a dechlorinated diet causing the oedema to disappear in a relatively short period." We believe that the general experience of clinical observers supports the opinion expressed by Dr. Watson. It would have been well to give more tables showing the chemical composition of various articles of food, with especial reference to purins, starch, sugar, and lime, and in beverages to alcohol, sugar and sugar-forming extractives, in order to help medical men to construct dietaries for their patients, or to express an opinion for or against the use of any particular article which they may desire to take. As might be expected from his previous writings, Dr. Watson leans towards moderation in the use of meat, and regards the work of Chittenden and others as proving the wastefulness of an excessive meat diet. In twenty-two appendices he reprints papers published by him during the last few years in association with seven collaborators upon the influence of protein or meat diet upon growth and nutrition, and upon various glands such as the thyroid, liver, adrenals, the reproductive organs, and upon the skin and teeth, the last being a study of the influence of meat diet in gout.

A book on sick diet,[8] written jointly by Frau EMILIE KIESLINGER and Dr. KARL WIRTH of Vienna sets out with a statement by the lady that not only the physical well-being but even the happiness of the family depends upon a well-ordered kitchen, and, if the dependence be as close as she thinks, many families must, we fear, suffer in both these respects. However this may be, she goes on to argue that, if it is indispensable for the ordinary family of healthy people, it is still more necessary for the sick. She claims that, though she is an Austrian, her cookery is not Austrian, but international. Her share of the book, we presume, is all the cookery directions, while Dr. Wirth has written the introductions and the special accounts of the dietetic treatment of particular diseases. His part is small, and the book is, in fact, an excellent cookery-book; people in good health might wish they could be fed on such dishes as occupy the greater part of it. The only criticism we suggest is that most sick people do not require such elaborate cookery, and that the great bulk of these dishes would find no place in the treatment of ordinary illness, but in such diseases as diabetes a variety of palatable dishes of a suitable kind is a great boon, and English cookery is not strong in the cooking of eggs, cheese, and vegetables. Madame Kieslinger would have every nurse be an expert cook, but, if they were, few would have opportunities of exercising their skill. This book will be valuable to people who are not nurses but have invalid relatives for whom they desire to provide suitable and tempting food. They will find here all the help they need, and in addition many useful hints on the management of the sickroom.

SIGNS AND SYMBOLS OF PRIMORDIAL MAN.

DR. ALBERT CHURCHWARD dedicates his volume, *Signs and Symbols of Primordial Man*,[9] to brother Masons. It is to a large extent an amplification of his former monograph on the *Origin and Antiquity of Freemasonry*, and an attempt to meet some of the criticisms with which the latter was received. The book is therefore primarily addressed to Masons.

To form a just estimate of this lengthy volume in all its aspects one would require to be well versed in eschatology, Egyptology, physical anthropology, and other cognate branches of science. We have come to the conclusion, moreover, that the reader should be a Freemason of high degree in order fully to appreciate the significance of much that it contains, although we observe that the author holds that the ordinary Mason of the third degree can comprehend the import of all that he writes.

Dr. Churchward seeks to prove that all Masonic rites and ceremonies sprang not from the "Roman College of Artificers," as some have held, but that Freemasonry is now, and always has been, an eschatology, having originated in Ancient Egypt, "from the sublime teachings of Ptah," and that these teachings "were carried out of Egypt by Moses, and the original or first High Priests of the Druids that came to these islands." This is, in brief, the thesis which the author seeks to establish.

That Dr. Churchward has written an interesting book

[6] *Nach Diagnosen geordnetes Register für Augenärzte.* Von Dr. Georg Hirsch, Halberstadt. Leipzig: Wilhelm Englemann. 1909. (Dbl. fcap. 4to, pp. 192. M.7.)

[7] *Food and Feeding in Health and Disease: a Manual of Practical Dietetics.* By Chalmers Watson, M.D., F.R.C.P.E. Edinburgh and London: Oliver and Boyd. 1910. (Med. 8vo, pp. 654. 10s. 6d.)

[8] *Die Krankenkost.* Von Emilie Kieslinger und Dr. Karl Wirth. München: J. F. Lehmann. 1910. (Demy 8vo, pp. 258. M.3.60.)

[9] *The Signs and Symbols of Primordial Man; being an Explanation of the Evolution of Religious Doctrines from the Eschatology of the Ancient Egyptians.* By Albert Churchward, M.D., M.R.C.P., etc. Swan Sonnenschein and Co. 1910. (Roy. 8vo, pp. 473. 25s.)

and one full of evidence of wide reading, cannot be doubted; but that he has succeeded in proving his case will not, we believe, be the verdict of the majority of his readers.

It is impossible in the limited space at our disposal to discuss the very many debatable points which arise, but the book throughout appears to be one long piece of special pleading. In several instances recognized authorities, whose opinions are at variance with those of the author, are simply dismissed without further argument as being inaccurate or erroneous. For example, in discussing the meaning and import of the "cable-tow," we are told that Father Burgo and Juan de Cordova are wrong in their translations, and that the ceremonies which they observed and described "show how ignorant they were of the true meaning of the ceremony." It is not made clear why they are wrong. Again, on p. 15 Dr. Churchward writes that Dr. Edward Seler "has not succeeded in giving the true decipherment of any of his translations of the various codices of the Mayas, Mexican, and Central American nations that he has attempted to, and until he recognizes Egypt as the primordial and origin we are of opinion that he will not." The author may be right, but arguments of this kind fail to carry conviction. It is to be regretted that the author is so prone to attribute "lamentable ignorance" to those who do not agree with him; this attitude is observable throughout the book, but is particularly pronounced in the preface.

With regard to the anthropological aspect, Dr. Churchward says that "the human race originated, or was planted, in the north-east of Africa (including the sources and banks of the Nile)." No doubt such a view is a very picturesque explanation of the position of the newly I at the N.E.C., but is it scientifically proved, and what is the evidence? Polygenism is not yet dead, and we believe that Professor Keane, himself an ardent supporter of monogenism, still believes with much reason, the cradle of the human race to have been situated somewhere in the Indo-Malayan region. Neither do the researches of Professor Elliot Smith into the ancient races of Egypt lend support to the views expressed in this book.

The vexed question of the origin and significance of Totemism cannot be entered into, but it may be suggested that Dr. Churchward forces his analogies too far. Zoologists are everywhere finding evidences of "convergence," and now fully recognize that morphological similarities do not of necessity mean phylogenetic kinship. Is there no such thing as mental convergence? May not similarity of natural surroundings have given birth to similar elemental ideas in the primitive mind, leading to comparable rites and ceremonies in different parts of the world? We are inclined to think that such may be the case.

While a careful perusal of Dr. Churchward's book has led to the opinion that there is much in its general tenor open to adverse criticism, we desire to add that it contains much interesting material and is very suggestive. It is well got up, and some of the many illustrations are beautifully executed. It is singularly free from verbal mistakes for so long a work, showing that the proofs must have been most carefully revised. "*Viddas*" does not appear to be the correct method of spelling the word, but this is, however, a minor point.

Many Freemasons will agree with the author in thinking it a pity that a greater number do not interest themselves in what may be termed the archaeology of the Order, and Dr. Churchward will have performed good service if by his writings he succeeds in stimulating further research into so fascinating a subject; at the same time one ought to be very cautious in accepting Dr. Churchward's conclusions upon the evidence which he has so far been able to produce.

NOTES ON BOOKS.

A SMALL handbook entitled *Massage in Practice*,[1] by Miss MARGARET ATKEY, is addressed to persons who already hold a certificate for massage. The reader is, therefore, spared the anatomical and physiological details with which some books on this subject have been overweighted. The book is well arranged, has a good index, the directions are clear, and, as far as we have observed, the writer gives no encouragement to the practitioner of massage to usurp the position of an independent practitioner. It will serve, perhaps, to dispel the notion that massage to be effective must be violent, and therefore useful only in disorders in which such violent movements can be endured by the patient. It will also be of use to medical practitioners in suggesting to them certain disorders in which massage is useful but for which it is not often prescribed.

[1] *Massage in Practice.* By Margaret Atkey. London: The Scientific Press, Ltd., 28 and 29, Southampton Street, Strand, W.C. 1910. (Post 8vo, pp. 115. 2s. 6d.)

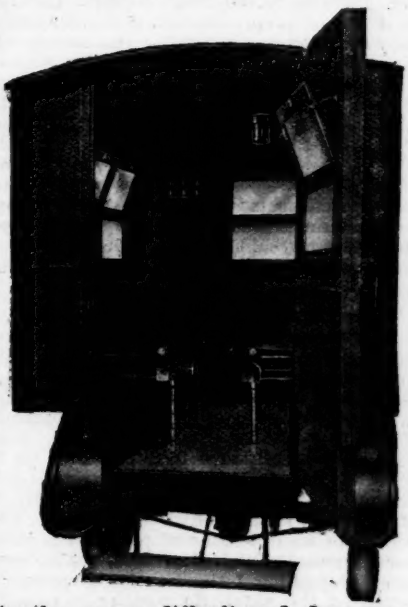
The transactions at the Conference on Tuberculosis,[2] which was held in connexion with the annual meeting of the National Association for the Prevention of Consumption and other forms of Tuberculosis in Edinburgh last July have been issued in a volume with a preface by Sir Alexander Christison, Bart., who was the chairman of the local committee which arranged the conference and the exhibition held at the same time. Among the subjects discussed were the avenues of infection, introduced by Professor Sims Woodhead and Dr. Theodore Williams; the administrative control of tuberculosis, introduced by Dr. Hermann Biggs of New York and Dr. Leslie; the incidence of tuberculosis in childhood, introduced by Dr. Franz Hamburger of Vienna and Dr. J. E. Squire; and the working man in relation to tuberculosis, introduced by Mr. Garland and Dr. J. C. McVail.

[2] *Transactions of Edinburgh Meeting and Conference on Tuberculosis*, July, 1910. National Association for the Prevention of Consumption and other forms of Tuberculosis. Edinburgh: Morrison and Gibb, 1911. (Super roy. 8vo, pp. 219. 2s. 6d.)

MEDICAL AND SURGICAL APPLIANCES.

Motor Ambulance for Pretoria.

THE use of motor traction for ambulances is, as we have noted from time to time, extending. The accompanying illustration shows a motor ambulance made by Messrs. J. and A. Carter, 2, 4, and 6, New Cavendish Street, London, W., for the fire department of Pretoria. The chassis is of 1911 pattern, fitted with "Silent Knight" four-cylinder engine, four speeds, specially geared for ambulance work and hill climbing, with a colonial clearance of 9 in. from the ground. Solid tyres are fitted to this model for traversing rough roads in country districts; and three brakes. The body of the car affords unique accommodation; the stretchers along each seat-line are drawn towards the centre door at the rear, and the loading of stretchers is facilitated by an extension piece upon which the stretcher can rest, and this obviates the necessity for attendant climbing into the car—a difficult and dangerous operation when carrying an injured person. The stretchers and swing frames upon which they rest are collapsible, folding into small compass for packing, and both are easily detachable, so that the car can be instantly converted into a travelling conveyance for passengers or convalescents, the spring stuffed cushioned seats and back-rests, combined with the special resilience of the springs, eliminating all jar or vibration. The car is designed for a maximum load of thirteen persons.



The Measurement of Surface Brightness.

A discussion at the Illuminating Engineering Society in the early part of 1910 on the subject of glare (reported in the BRITISH MEDICAL JOURNAL at the time) has had a practical outcome in a little instrument called the Holophane Lumeter (R. and J. Beck, Limited, 68, Cornhill, London, E.C.). This is an instrument for measuring in

candle-feet the brightness of any surface as distinct from that of an illuminating source. It consists, to put it briefly, of a box with a white disc having an aperture in the centre. On illuminating the disc with an incandescent electric lamp within one of the box chambers, and pointing it towards the object to be examined, the relative brilliance of the disc can be graduated until it appears to be exactly the same as that of the object seen through the aperture, and this degree of illumination is then read upon a scale which ranges from $\frac{1}{100}$th of a candle foot to 100 candle-feet. Many uses suggest themselves for this development of the photometer, such as the determination of the light on a book or wall-paper, the relative intensity of lights and shadows in a landscape or a room, the absorption of light by glass or other transparent substances. Many people take it for granted that an illumination of one candle-foot is sufficient for newspaper reading, irrespective of the newspaper surface, but the inventors of this apparatus state that the reflecting capacity of a newspaper may represent only a fraction of the light impinging upon it. The *Westminster Gazette*, for example, has 90 per cent. of the reflecting power of white cardboard; the *Globe* 80 per cent. approximately, and the *Sporting Times* 53 per cent.

Blood Test Case.

The "Soloid" Blood Test Case, recently introduced by Burroughs, Wellcome and Co., measures 4 in. by 3½ in. by 1½ in. The contents comprise: One tube of "Soloid" brand Romanowsky Stain (Leishman's Powder), one 20 c.cm. drop bottle; 10 c.cm. stoppered phial of distilled water; 10 c.cm. stoppered phial of methyl alcohol; 1 c.cm. pipette; grease pencil and vest pocket case containing six microscopic slides and Hagedorn needle in alcohol. The materials have been selected with discrimination, and the case being very portable is likely to be of considerable use to medical men.

MEDICINAL AND DIETETIC ARTICLES.

Tea.

WE have received from Messrs. Thos. Christy and Co. (Old Swan Lane, London, E.C.) samples of a tea which they are introducing under the name "Py-shan Points" tea. It is stated to consist of the edges and tips of the leaves and young shoots. The absence of stalk not only gives a tea which is economical in use, but a substantial advantage is also gained through the absence of the tannin of the stalk. In our experiments an eight-minute infusion of this tea was compared with similarly-prepared infusions of ordinary tea sold at the same price, and of a considerably more expensive China tea; tests showed that Py-shan tea gave an infusion containing decidedly less tannin than the ordinary tea, though the amount was not so small as from the China tea. The aroma of the Py-shan tea is good.

"Calogen" Fumigators.

The calogen blocks supplied by Messrs. Chas. Zimmermann and Co. (9 and 10, St. Mary-at-Hill, London, E.C.) are intended for use in fumigating rooms, cupboards, etc., with moist gaseous formaldehyde. They consist of a mixture of permanganate and bichromate compressed together; this is placed in a pail, and ordinary 40 per cent. formaldehyde solution poured on to it; after a few seconds chemical action begins, and quickly becomes so violent that the liquid boils vigorously, expelling clouds of vapour of formaldehyde and water. The reaction which occurs is an oxidation of part of the formaldehyde by the permanganate and bichromate, but excess of formaldehyde is employed, and the heat is developed so quickly that much of the aldehyde vapour is expelled unaltered; it is stated that 6 oz. of the solution added to one block is sufficient for the disinfection of 1,000 cubic feet of air-space. The specimen which we tested was of the size just referred to, but smaller sizes are also prepared. The use of these fumigators certainly ensures a vigorous evolution of formaldehyde, accompanied by abundance of the water vapour which is requisite for its efficiency as a germicide.

THE twenty-first Congress of French-speaking Alienists and Neurologists will be held at Amiens next August (1st to 6th) under the presidency of Dr. Deny, physician to the Salpêtrière. The work will be arranged under three heads as follows: *Psychiatry:* Different kinds of psychopathic pains—their significance and the part they play; *Neurology:* Tumours of the pituitary body; *Forensic Medicine:* The value of the testimony of lunatics in the eyes of the law.

SEVENTEENTH INTERNATIONAL CONGRESS OF MEDICINE.

A MEETING of the Organizing Committee was held on Wednesday, March 29th, at 5 p.m., in the Library of the Royal College of Physicians. Sir THOMAS BARLOW was in the chair, and forty-eight members were present.

The following report was brought up from the Executive Committee:

That the Treasurers be authorized to open a general account with the London County and Westminster Bank.

That the Treasurers be authorized to open a petty cash account to meet current secretarial expenses, the sum deposited not to exceed £100. (With a view to start such a current account it was resolved to apply for part subscriptions to members of the committees already appointed—Executive, Finance, and Reception.) The Chairman of the Finance Committee stated in reply to a question that it was impossible to make any definite estimate of receipts and expenses, but that a large sum—probably not less than £7,000 or £8,000, would have to be raised.

That it is desirable that an exhibition of medical and surgical appliances be held.

That the Permanent Commission be asked to consider the question of the number of Government delegates to be invited from each country, and that it be suggested that each Government should be asked to select one delegate to represent it officially.

That invitations be issued only to Governments and accredited universities.

That the opening session of the Congress should take place on Wednesday, August 6th, and the closing session on the afternoon of Tuesday, August 12th, 1913. In reference to this it was explained that the inconvenience of Bank Holiday (August 4th) on the one hand, and the impossibility of meeting earlier than August owing to the curriculum of foreign universities on the other, were so great that it was found better to include a Sunday in the week of the Congress than to try to complete the whole in the week August 4th to August 9th, as had been originally intended.

These resolutions were adopted.

The Executive Committee reported further:

That the surplus left over from the congress at Budapest had been devoted to a "Prize of Hungary," to be awarded under special regulations at each future meeting of the International Congress.

That the University of London, the Imperial College of Science and Technology, and the City and Guilds (Engineering) College had expressed their willingness to put the rooms in their buildings at the disposal of the congress, and that negotiations were proceeding with other bodies.

The report of the Executive Committee containing the following recommendations was brought up:

1. That the Sections of Laryngology and of Otology be continued as two independent sections.
   (*a*) That the Executive Committee be requested to allocate to them two adjoining rooms.
   (*b*) That it be a recommendation to the councils of these two Sections to arrange their programmes in a conjoint council meeting.
   (*c*) That the transactions of these two Sections should be published in one volume and supplied to each member of either Section.
2. That a Section of Radiology be included in the Congress.
3. That the Section of Pathology include a Subsection of Chemical Pathology.
4. That a Section of Anaesthesia, both general and local, should be established.
5. That Sections XX and XXI of the last congress be altered so that one Section should be devoted to naval and military medicine, and another Section wholly devoted to tropical medicine.
6. That the titles of the following Sections be altered, and that instead of
   Section III, General and Experimental Pathology,
   Section IV. Bacteriology and Pathological Anatomy,
   Section XVIII, Hygiene and Immunity,
   the sections be entitled:
   Section III, General Pathology and Pathological Anatomy,
   Section IV. Bacteriology and Immunity,
   Section XVIII, Hygiene and Preventive Medicine.

These resolutions were adopted.

The Executive Committee further reported as follows:

7. That it is desirable that when at any of the Sections subjects are appointed for discussion, the papers (*rapports*) introducing such subjects should be previously printed and distributed: (*a*) To all the members of the Section who have intimated their intention to join in the discussion; (*b*) to any members who may apply for them; and that a stock of such papers be kept at the central office, to be handed to other members of the Section at the time of the meeting.

It was further stated, in answer to questions, that though the introductory papers could not each be printed

in full in the four official languages, abstracts of them would be printed in all four languages, as was done at the last congress in London.

8. That it is desirable:

(*a*) That in each Section the morning sessions shall be devoted to discussions on subjects of interest to be selected by the officers of the Section.

(*b*) That each such discussion shall be introduced by not more than two speakers, to be selected by the officers of the Section, with due regard to the international character of the meeting.

(*c*) That it shall not be allowed to read the introductory papers already printed, but a time of not more than twenty minutes shall be allowed to each introducer to read and elaborate an epitome of his introductory paper. Subsequent speeches in the discussion shall not exceed ten minutes each.

(*d*) That none but the introductory speakers shall be specially invited by the officers of the Section to take part in the general discussion, and that no written papers be allowed to be read in the course of the discussion.

(*e*) That at the morning sessions no papers or communications on subjects other than the subject for discussion shall be taken unless the general discussion has terminated before the hour fixed for the termination of the morning session.

(*f*) That the afternoon session shall be devoted to papers offered by members of the Section.

(*g*) That the staff of the Section shall have the power of selection from among the papers thus offered, and of rejection of any which they do not think advisable for the work of the Section.

(*h*) That not more than fifteen minutes be allowed for the reading of any such paper, nor more than five minutes for any speech in the discussion thereof.

(*i*) That the staff of the Section shall have power to arrange the order in which papers thus offered shall be taken, and shall be guided by the intrinsic importance of the papers, and not by the priority of their reception.

(*j*) That there shall be no Honorary Presidents of Sections.

(*k*) That in the event of a President of a Section being prevented from attending one or other of the meetings of his Section, one of the Vice-Presidents or Members of Council shall take the chair in his absence.

The above resolutions were adopted.

It was stated that the whole of the above resolutions would be submitted to the Permanent Commission of the International Congresses of Medicine, the first meeting of which will be held in London on April 21st and 22nd.

The Executive Committee further reported the following resolutions:

9. That Dr. Clive Riviere be appointed Secretary to the Reception Committee.

10. That it be an established principle that, if Sectional Dinners be held, each member dining at such dinner shall pay his own expenses.

11. That a Ladies' Committee be appointed.

12. That the following Subcommittees be appointed, with power to add to their number and to elect their own chairmen:

Dinner and Soiree Committee.—Sir William Bennett, Sir Havelock Charles, Sir Anderson Critchett, Sir Thomas Crosby, Dr. George Ogilvie, and Mr. D'Arcy Power.

"London Sights" Committee.—Dr. T. D. Acland, Dr. Bertrand Dawson, Mr. W. H. H. Jessop, Dr. Norman Moore, Mr. Stephen Paget, Dr. Parkes Weber, Dr. Leonard Williams.

Excursions Committee.—Mr. L. A. Bidwell, Dr. Gordon Dill, Sir Francis Laking, Professor Wm. Osler, Mr. Mayo Robson.

13. That the following be appointed to deal with an exhibition or exhibitions of pictures, antiquities and other objects of interest in the history of medicine: Dr. Norman Moore (Chairman), Sir Wm. Allchin, Dr. Leonard Mark, Mr. D'Arcy Power, Dr. Rice-Oxley, Dr. Parkes Weber.

These resolutions were adopted.

The Executive Committee further reported:

14. That, for the purpose of communication with foreign societies or with foreign medical men, the central office of the congress shall be at the disposal of secretaries of sections and that translators shall be provided by the central office when required by the secretaries of sections.

15. That all official correspondence connected with the sections shall pass through the central office.

These resolutions were adopted, and the Committee adjourned.

WILLIAM ANDREW BETTS, Esq., M.D., of the Department of Public Health, Cairo, has received the Royal permission to accept the insignia of the Third Class of the Imperial Ottoman Order of the Medjidieh, conferred upon him by the Khedive of Egypt, in recognition of valuable services rendered by him.

LITERARY NOTES.

THE Italian Government offers a prize of £400, open to competitors of any nationality, for the best essay on the prophylaxis of anthrax of industrial origin. The essays, which must be written in Italian or French, should reach the Ministry of Agriculture on or before December 1st, 1911.

On March 29th Dr. Lloyd Roberts lectured before the Manchester Dante Society on "The Scientific Knowledge of Dante." He first dealt with Dante's life at Florence, and adverted to the fact that the poet became a member of one of the great guilds of the city (Arte de' Medici e Speziali), with the craftsmanship of which he was best acquainted. He afterwards spoke of the Apothecaries' Establishment in Florence, and the state of the medical art in Dante's time. He next dwelt on the University of Bologna, its equipment, curriculum of studies, system of graduation, etc., and said that Thaddeus of Florence, the great Hippocratist, founded the Clinical School of Medicine at that famous seat of learning. Dr. Lloyd Roberts argued that Dante studied medicine at Bologna, and that he owed his great scientific knowledge and his profound acquaintance with the different departments of medicine to the training he received in that "rinomato Ateneo." The relations of Dante with Giovanni del Virgilio, a professor at Bologna, were also considered. Finally, the lecturer discussed the scientific allusions in Dante's works (embryology, pathology, physiology, psychology, physics, botany, physical geography, etc.), quoting the original passages, thus showing Dante's wondrous many-sidedness.

The April number of the *Cornhill Magazine* contains a brightly written article on a country practice by "A Doctor's Wife." She says:

> The uncertainty of a doctor's life is its hardship. He must be as alert at any summons of the bell as if he had had an eight-hour night's rest behind him, instead of perhaps a long drive and hours of a stuffy cottage bedroom, of which the windows are not even made to open. The inhabitants may not much regret the fact that the picturesque casements under the thatched roof are not made with hinges, but the effect on the doctor of the air he is compelled to breathe is, of course, very bad. I say nothing of the harm it does the patient, because that is not so obvious, at the time, at any rate. No doubt the bodily result of fresh air would be excellent, but the mental discomfort endured by many a farmer and cottager at the mere suspicion of a draught is so great that a feeble person might really be made very ill by a little fresh air. This also applies to washing. A substantial layer of dirt is a warm covering, and when people's food is not nourishing and heat-producing enough, they instinctively shrink from water. Also, perhaps for the same reason of economizing their natural store of warmth, it is not the custom for cottagers to undress as we do when we go to bed. They generally wear more clothes than we in the daytime, and at night content themselves with taking off the top layer, sometimes adding a nightgown as a finishing touch over the remainder of their garments. It seems a very uncomfortable plan, but it is no doubt a warm one.

Unconsciously, it may be, but none the less thoroughly, country people follow the teachings of that superscience which have recently been delivered to a public always eager, like the Athenians of old, to hear some new thing. But dirt is as old as the human race, and doubtless the gospel preached by the prophet of Paddington was practised by the passengers in the Ark with as simple a faith as it is by the country folk spoken of by "A Doctor's Wife." We all know the importance attached by hospital patients to the appearance of their physic. The more vivid the colour, the nastier the taste, the greater is believed to be the efficacy of the medicine. Some country people even pin their faith on the shape of the bottle in which it is contained. "A Doctor's Wife" says:

> Some of the poor people are very particular as to the exact colour and consistency of their medicine, and even as to the shape of the bottle it is dispensed in. The old sexton of the next village has a bottle of a peculiar size and appearance, which he always brings round to the surgery to be filled. One day my husband thought it well to give him a small quantity of some special medicine, and put it into a bottle which exactly contained the dose. But the old man remonstrated at the non-appearance of his old friend, but after that his medicine was always put into the favourite bottle.

This is an illustration of the obstinate conservatism of the untutored mind. It would doubtless remind Macaulay's schoolboy of the old priest of pre-Reformation days who habitually used a wrong word in saying Mass, and when his error was pointed out to him declared that he was

not going to change his old Mumpsimus for the new Sumpsimus! The same temper has been displayed in wider spheres throughout human history. Even in matters of science it has been a retarding influence, and adherence to the old Mumpsimus has nowhere played a larger part than in medicine. We find it difficult to refrain from further comment on the delightful article by "A Doctor's Wife." We will conclude by quoting an old rendering, attributed by her to Timothie Kendall, of the well-known epigram beginning *Tres medicus facies habet medicus:*

Three faces the Phisition hath;
First as an Angell he,
When he is sought; next when he helps,
A god he seems to be;
And last of all, when he hath made,
The sicke, diseased, well,
And asks his guerdon, then he seems
An oughly Fiend of Hell.

It is a common reproach to specialists that they will always find what they seek. In this they are no different from the type of investigator for whose benefit a famous scientist uttered the warning, "Beware in your experiments of looking for a particular result, or you will be sure to get it." The following, which we take from the *Medical Press* of 1844, kindly sent us by a correspondent, supplies an amusing example of this tendency; it also illustrates what may be called the contagion of enthusiasm:

The late Lord ——— had a daughter, who, falling ill at Bath, was attended by the late Mr. ———. Of course, he soon persuaded her that she had a stricture of the rectum. The young lady wrote to her mamma in town an account of her case, and of Mr. ———'s procedure to cure her. Mamma communicated this to papa, who, not liking the thing much, went straight to an eminent practitioner, who showed his Lordship the great improbability of his daughter being affected in the manner indicated; and made him aware that Mr. ———'s patients were all—man or woman, matron or maid—presumed to be affected with stricture in the rectum, and treated accordingly. His Lordship was in a great fume; he would not even write; he posted off the same evening to Bath to rescue his child from the malpraxis, as he believed it, of Mr. ———. But what ensued? The London surgeon received a letter in a couple of days from Lord ——— to say that his Lordship felt his visit to have been quite a providential one; that Mr. ——— had not only satisfied him that his daughter had a stricture of the rectum, but that he himself had one, and that he meant to remain at Bath to have it cured!

And yet there be those who doubt the power of suggestion!

Mr. Victor Plarr has sent us a reprint from the *Dublin Journal of Medical Science* of a paper on the Catalogue of the Royal College of Surgeons of England, of which he is librarian. He gives an amusing account of the pitfalls that surround the feet of the maker of medical catalogues. The old writers, he says, seemed anxious to put the best part of their book into the title, and the habit has not quite died out.

We still from time to time have to deal with some heavy work, the paper of which is loaded with clay and the title page with quite unnecessary verbiage. It would be an excellent plan, to be sure, if children at school could be taught how to christen a book, since in these latter years we are all by way of commencing authors. The making of a title is, indeed, a small art in itself.

If small, it is not one easily mastered, if one may judge from the vague and often misleading titles which are the despair of librarians. Mr. Plarr says he speaks feelingly on this subject, as a book title of his own has won for itself the "dubious distinction" of an elucidatory addendum (in brackets) in the British Museum Catalogue. The book is entitled, *The Twilight of the Jenners*, and, says Mr. Plarr, with just indignation, "the Museum cataloguer has thought fit to specify (parenthetically) who the Jenners were, as though there were some doubt about the matter." This recalls a story we heard about Sir William Jenner, who is still often confused with Edward, and who, especially in the early part of his career, was generally thought to be related to the discoverer of vaccination. He was so often questioned about the matter that at last any allusion to it was a cause of irritation. He was in an omnibus one day with Dr. Edward Cator Seaton who had so much to do with the promotion of vaccination in this country. Seaton seized the opportunity of a stoppage to bend over towards Jenner, and began "Are you . . .?" Before he had time to finish his question, the other broke out with an emphatic "No, not the slightest!" It will doubtless be interesting to many readers to learn that there is a "reserved collection" in the College Library in which "suppressed books" are kept safe from the curious eye. Among these is "a work, involving a grave breach of medical etiquette, relative to the illness of the late German Emperor." This, we suppose, is Morell Mackenzie's *Frederick the Noble;* when and in what sense was it "suppressed"? As an example of the difficulties which beset the cataloguer, Mr. Plarr mentions the following:

Such a lumbering title, for instance, as "An Account of the Sufferings of two Ladies during a six weeks' detention at the bottom of the crevasse in the Alps of the Bernese Oberland, with an Appendix containing a brief Historical Survey of the History of Mountaineering from the Earliest Times to the Present," should come under some such heading as "Endurance, Physical," or "Fatigue," and cross-references can be made to this heading from "Mountaineering" and "Bernese Oberland." It is best not to worry ourselves unduly over the question as to whether we have rightly classified our title so long as we make plenty of cross-references.

It appears that librarians are in the habit of testing the knowlege of candidates for classifying clerkships by means of obscure or tricky titles. Mr. Plarr himself was invited to classify a work with the title *De Cornutis.* He says:

It loomed on me horribly as something catchy and incomprehensible, and with the perspiration starting out on my juvenile forehead I gasped "De Cornutis—concerning horned beasts."
"Yes," said the eminent librarian very grimly, "they *are* horned beasts."

Mr. Plarr says his knowledge of mediaeval satire was then necessarily limited and he did not know the meaning of *cornuti* in the language of "ancient satirists." He questions "if many would pick up this piece of information at any time during their earthly pilgrimage." Surely there are still a few people who have looked into Shakespeare, and who have not forgotten Touchstone's reflection on his intended marriage in the forest:

A man may, if he were of a fearful heart, stagger in this attempt; for we have no temple but the wood, no assembly but horn-beasts. But what though? Courage! As horns are odious, they are necessary.

* * * * *

As a walled town is more worthier than a village, so is the forehead of a married man more honourable than the bare brow of a bachelor.

Mr. Plarr gives instances of fantastic indexing, citing the familiar entries, which have so long been the *opprobria* of the catalogue maker, "Mill on Liberty," "Mill on the Floss." To this somewhat musty instance of the vagaries of the cataloguer we can add another probably less known. A learned clerk of Oxenford, who was interested in the subject of the Immaculate Conception, wished to consult a rare work on that theological dogma, which he had been told was in the library of a certain college. The catalogue, however, gave no clue, and, after exhausting his ingenuity in the matter of possible entries, the divine was driven to apply to the custodian, who, with the weary smile of one who has had long experience of human stupidity, at once directed him to the subject heading, "Obstetric Anomalies," where, sure enough, the elusive tractate was found. Recently a correspondent of the *Tablet* wrote that he had noted in a current list of the "Times Book Club" the new edition of Dalgairn's *Devotion to the Sacred Heart.* In the absence of a department of physiology, he says, this entry is made under "Natural History," and its companion volume is *The House Fly.*

The *Biochemical Journal* of March 4th contains an interesting sketch of the late Dr. Christian A. Herter of New York, who is described as "one who championed the cause of imagination and idealism in the medical sciences." Though only 45 at the time of his death he left his mark in many fields of activity. In 1892 he published a work entitled *The Diagnosis of Diseases of the Nervous System.* Later the field of medical chemistry attracted him, and he gave up practice. In 1897 he was appointed Professor of Pathological Chemistry in the Bellevue Hospital Medical College. He founded the *Journal of Biological Chemistry*, and with Professor Abel was one of its first editors. He ensured the permanent stability of the journal, and provided a board of directors for the perpetuation of its publication.

THE COMPOSITION OF CERTAIN SECRET REMEDIES.

OBESITY CURES.

Third Series.

WE have on two previous occasions[1] published the results of analyses of medicines advertised for the reduction of obesity; some of the preparations which were dealt with were then being advertised extensively, but are little, if at all, in evidence now, but whether this is in any way due to the publication of our analyst's reports we are not able to say. Others, however, are now being advertised; some are apparently newly put forward, while others have been established for varying periods. We now give the results of analyses of some of those at present advertised and sold.

A. GORDON WALLACE'S "TREATMENT."

This is advertised by A. Gordon Wallace, London. It is priced at one guinea for a month's "treatment," but as the first fortnight's medicine is supplied free, the actual amount to be paid for it is 10s. 6d. The following extracts from advertisements will show the nature of the claims advanced.

ARE YOU TOO STOUT?

Famous Obesity Specialist tells how everyone can lose Superfluous Flesh and Improve their General Health. . . .

If you are one of the thousands of much-enduring men and women who are unhealthily stout, or growing too stout, this article will bring new hope to you. If your appearance is marred by a double chin, or an ungainly bust, or a protruding abdomen, or any other disagreeable evidence of Obesity, here is an offer that will help you to remove the ugly defects in your physical appearance. If your health is threatened—as it must be—by superfluous flesh, which generally carries in its train gout, or rheumatism, or palpitation, or "fatty" heart, or some other serious ailment, read and profit by this advice from a famous Obesity Specialist. . . .

I do guarantee to reduce your weight safely and scientifically, and strictly according to well-defined and recognised physiological laws, if you will conscientiously follow out my directions while you are taking a course of my Treatment.

Medical men have, on their own admission, been so far baffled for A REAL AND EFFECTIVE CURE that will bring in its train no other injury to the patient's system. I know I have found a cure at last. I know what it has done for thousands of others and I know it will do the same for you. All you need do is to write to me to-day, and you will receive my book, which will be of invaluable service to you, by return post, free of charge. . . . I will send securely and privately packed, to any reader who forwards me 3d. for postage, a full-size fortnight's package of my remedy free of charge. . . . You will not have to wait for weeks, or even days, before deriving benefit. You will experience at once a wonderful feeling of lightness and brightness; you will be able to walk longer distances without being fagged; your heart will beat more regularly; and your breathing will be better.

The "fortnight's package" was accompanied by a letter, of which the following is a part:

As a rule, One Month's Treatment is sufficient, though, of course, I need scarcely say that in some cases the Treatment must extend to two or even three months, in order to secure complete and permanent results. My usual fee for an ordinary month's course is One Guinea (credit, of course, being given for the cost of the free fortnight's trial treatment enclosed) and on receipt therefore of P.O. for 10s. 6d., together with the accompanying Consultation Form, fully filled up, I will at once formulate and send you the directions and various preparations suited to your requirements, thus enabling you to complete the full month's course at half price without any interruption.

The second fortnight's treatment really begins the actual flesh-reducing portion of my system following upon the elimination of the impurities that are robbing you of your vital NERVE FORCE, and I would emphasize the importance of this continuity of treatment to ensure a satisfactory reduction of your superfluous flesh, and also generally improved health.

The "book" referred to was also sent; it is a small paper booklet of about fifty pages, entitled, "Obesity: Cause and Treatment. By A. Gordon Wallace, Specialist." This curious qualification is the only one that is mentioned on the title page; but on page 33 the following appears under the heading

In Plain Language.

It is apropos for me to here mention that I am a physician holding diplomas by examination, and I have made the cause and treatment of Obesity a special study. My methods of treatment are based on sound physiological grounds, and not merely tentative or empirical.

This little treatise is not an essay such as I would deliver before a medical society, but is a talk to the laity, therefore I purposely avoid the use of technical language. I am to discuss the subject here in as simple a manner as I possibly can so that everything will be clearly understood.

I am confident that this method of stating the facts will be appreciated.

On other pages it is stated that

My method is unlike any other. I give my patients a true physiological treatment that restores lost Nerve-Force, and Nature does the rest.

My Treatment allows you to eat what you like and drink what you like.

The "fortnight's package" contained 54 sugar-coated tablets. The directions on the label were "Two Tablets to be taken three times daily between food." At this rate the "fortnight's" supply would last nine days.

After removal of the coating, the tablets had an average weight of 2.9 grains. Analysis showed them to consist of an extract and a vegetable powder; the extract agreed in characters with extract of bladder-wrack (*Fucus vesiculosus*), which is the basis of a great many of the nostrums for obesity; although this extract is not known to contain any definite active principle which can be isolated and identified, its mineral constituents differ so much from those of most vegetable extracts that a careful examination of these, together with the characters of the extract itself, enable it to be identified with practical, though not absolute, certainty. The vegetable powder was found by microscopic examination to consist of liquorice root, together with a large proportion of the cells characteristic of powdered nutshells, olive stones, etc.; the cheapest liquorice powders in the market are largely adulterated with powdered nutshells and olive-stones, and this fact may perhaps account for the presence of the tissues in question. The quantity of extract in each tablet was about 2 grains. Similar tablets can be obtained wholesale at about 1s. a thousand.

DR. VINCENT'S ANTI-STOUT PILLS.

These pills are supplied by Dr. Vincent's Medicine Co., London at 2s., 4s. 6d., and 10s. per box. A 2s. box was found to contain 38 pills.

In an advertisement of these pills it is stated that

One 2s. Box of Dr. Vincent's Anti-Stout Pills has in hundreds of instances completely cured, and in any case will do more to reduce corpulency than any other remedy extant.

Dr. Vincent's Anti-Stout Pills are small, harmless, pleasant to take, and without change of diet will reduce superabundant flesh as much as 10 lbs. in a week.

A printed circular and a circular letter were sent with the pills, and the following are extracts from these:

Dr. Vincent's famous and most successful method for the elimination of superabundant flesh is now well known throughout the English speaking world. . . . Where a fair trial has been given it has never been known to fail. . . . The pills are purely vegetable, and present a striking contrast to many so-called remedies so freely offered at extravagant prices to the public, some of which are useless and others dangerous.

Every case is amenable to my treatment if two simple rules are followed. First, the treatment must be carried on with regularity, and second, without interruption. . . . Naturally you want to complete your cure and I have a special offer to make you. The Ten Shilling box of Dr. Vincent's Treatment is usually sufficient for a complete and lasting cure, and so as to encourage you to continue the process of reducing your weight, I shall be pleased to send a Regulation Full Size 10s. box for a remittance of 8s. In other words I allow you the 2s. you have paid for the Trial box sent herewith off the price of the 10s. Treatment, if you apply within 21 days of the date of this letter.

(The letter, however, was undated.)

The directions on the box are: "Dose.—Two Pills every night, also One Pill every morning."

The pills were coated with talc; after removal of the coating they had an average weight of 2.6 grains. Nearly half the mass consisted of "extract"—apparently a mixture, about 15 per cent. was resinous in nature, and the remainder consisted chiefly of the tissues and cell contents of powdered vegetable substances. The nature of these was investigated with the aid of the microscope, and from the histological characters of the powder together with the results of tests applied to the pill, evidence was obtained of the presence of

Jalap
Colocynth
Cloves
Aloes, or extract of aloes
Extract of *Fucus vesiculosus*

[1] BRITISH MEDICAL JOURNAL, 1907, vol. ii, pp. 24, 150; 1908, vol. ii, p. 1566.

The last named could not be identified as fully as in the preceding case, owing to its being present in not very large proportion in admixture with the other drugs named, but the evidence for its presence appeared adequate.

It is not possible in such a mixture to give with any certain near approximation the proportions in which the different ingredients were present.

PHATOLENE TABLETS.

"Phatolene" Tablets are sold by the Phatolene Co., Ltd., London, at 6d., 4s., and 10s. per box.

An advertisement of these tablets is in the following terms:

Don't be fat when Phatolene Tablets will cure you absolutely. The only safe and certain remedy. Registered by Government. Thousands of Testimonials. Phatolene Tablets are guaranteed to cure you of stoutness without starvation, aperients, or interference with your ordinary method of living. Phatolene Tablets are the most remarkable scientific discovery of the present age. Phatolene Tablets are an aid to health, make you look younger, and produce a charming figure. We are so confident that Phatolene Tablets will reduce your weight daily, that we offer to send you a large trial box in return for a sixpenny postal order only.

The box which was sent bore no patent medicine stamp, and so presumably "registered by Government" refers to the name being registered as a trade-mark. It is clearly intended to suggest much more than this. A letter sent with the "trial box" was headed:

The Phatolene Co., Ltd.,
(Sole Agents for the Discoverer of the "Phatolene" Remedy)
F. Lawrence, Manager and Certified Chemist.

It should be observed that "certified chemist" is not a legal qualification, and may mean anything or nothing; it is not to be confused with "registered chemist and druggist" or "pharmaceutical chemist." Some extracts from the letter are:

As a chemist of over 20 years' practice I have often been personally consulted by my clients of both sexes in regard to obesity and local overfatness. But it is even more pleasure to me to come in touch with those who prefer to do so under the Government-guarded secret service of His Majesty's Post Office. . . . As a matter of fact I have to charge more if people use up my time as well as their own in personal consultations. And there is no necessity for this time-wasting or money-wasting, as I know that my Phatolene discovery will succeed in your case as it has done in others. . . . My One Week's Trial Supply is not sufficient of course to overcome a bodily condition that may have been developing for nearly a year. My Phatolene reduces all fat within the body at a steady and safe rate, and one, two, or three months' supply is sufficient to restore all but the unusually fat to their proper size, weight, and appearance.

What quantity may I send you? For your guidance I may point out that my experience enables me to inform you that you will require the following quantities according to these conditions.

If you have been fat or growing fat less than one year, you will require one month's supply for 4s., post free. If fat or growing fat one year, and not two years, you will require three months' supply for 10s., post free.

From a second letter:

To cure any ordinary case takes about 12 weeks, for if the reduction is forced in a more violent way the stoutness is sure to return and thus you gain only a temporary relief, and you should therefore take advantage of our 12 weeks' treatment which will cost you 10s. only. . . .

You are aware I have made a study of obesity, and you can naturally understand I am interested in your case and shall be only too pleased at all times to answer any questions on the subject, but please enclose stamped directed envelope.

In a leaflet enclosed with the package occurs the following impudent attempt to make it appear that the nostrum has the support of medical practitioners and of this JOURNAL:

The Treatment of obesity should not be quick, but slow. To attempt to reduce superfluous fat by violent or sudden means is dangerous, especially if the heart is at all weak, and this is why medical men invariably recommend Phatolene Tablets. . . . Doctors cannot dispute the fact that this preparation has for a long time had the reputation of reducing corpulence.

The Practitioner says: "Taken three times a day reduced the fat of a lad who had suddenly become corpulent."

The British Medical Journal: "Given to lessen fat with good results."

Again, the same Journal says: "Given with good results and does not produce dyspepsia or diarrhœa. A lady lost 20 lbs. in 9 weeks when taking this, and a gentleman 8 lbs. in 3 weeks without bad results."

It is scarcely necessary to say that neither the nostrum in question nor any other has ever been referred to in this JOURNAL in the terms quoted.

The directions on the package are:

Dose.—For the first week take one tablet three times a day, and afterwards increase the dose to three Tablets three times a day, one hour before meals. Can be swallowed whole or allowed to dissolve in the mouth.

The "tablets" were really ovoid pills, coated with talc and coloured brown externally. The "6d. trial box" contained twenty-one. After removal of the coating the pills had an average weight of 2.7 grains. Analysis showed them to consist of an extract agreeing in all respects with extract of bladder-wrack (*Fucus vesiculosus*), together with about 10 per cent. of powdered liquorice root. No other ingredient was found.

KELLOGG'S SAFE FAT REDUCER.

Kellogg's "Safe Fat Reducer" is an American preparation, supplied by F. J. Kellogg, Battle Creek, Michigan, U.S.A. It is also advertised in Great Britain, and the following extracts are from an advertisement appearing here:

4/- Box of my Safe Fat Reducer Free.
I Want To Prove To You Before Your Own Eyes and At My Expense That I Can Reduce You to Normal Weight Safely, Without Starvation Diet or Tiresome Exercises.
It Doesn't Matter What You Have Tried, Send For This Free 4/- Box of my Safe Fat Reducer To-day.
My treatment is prepared scientifically. It does not stop or hinder digestion; on the contrary, it promotes proper digestion and assimilation of food, which 99 fat people in a hundred haven't got, and that's why they are fat.

On applying for a sample, it was sent accompanied by a circular letter, and this was followed by others at intervals. Some extracts from these are here given:

Of course, I do not promise that this 4s. treatment alone is going to cure you of all your fat, but I want to start you on the treatment without any expense to you so that during the next few days it will put your system in such a condition that the next treatment may produce results without any waste of time. . . .

You have a right to feel sure that Kellogg's Safe Fat Reducer is safe. You can depend upon it that it is positively safe, and you need never fear that it will reduce you too much.

Kellogg's Safe Fat Reducer builds up the entire system from one of the fatty weakness to muscular strength, and the results have been that it makes patients grow remarkably healthy as they continue the treatment.

Excess fat, I found, is the result of mal-assimilation of food. My Kellogg Safe Fat Reducer stops this defect; it prevents the stomach from its unnatural tendency to produce fat; it makes the stomach "mill out" the food into muscle fibre, bone, nerve tissues, brain pigment, and rich blood, instead of fat; it resolves the unnatural fat you have and expels it naturally and harmlessly through Nature's channels.

As a result there is no other treatment in the world like Kellogg's Safe Fat Reducer. It does not interfere in the least with your business. You don't have to diet yourself, but you can eat all you want. You don't have to go through any tiresome exercise at all. All you have to do is to be faithful to the treatment, take it according to directions and go about your work as usual; then you should be happy in feeling that the reduction will be sure to come in a few days, that you will be healthier than ever before, and more muscular, energetic, and athletic. A loss of a pound a day is nothing unusual, and will by no means hurt you. . . .

Now that I have started you on the treatment, I want you to continue. I will send you a full treatment of my Kellogg's Safe Fat Reducer for only £2 1s. 1d. There is positively no doubt of the result. And I know you will appreciate it when after a few days you will be able to note a distinct relief from the heavy burden you are now carrying, and the terrible dangers of apoplexy and paralysis, which threatens all fat people, are lifted from your mind forever.

From the second letter:

I make each case an individual case, thus I have to have the enclosed blank filled out, so that I may understand exactly the conditions, and thus employ the means that will most rapidly, and at the same time safely reduce your fat and make strong, healthy tissue and muscle. . . .

The price of the treatment is but £2 1s. 1d. Order it to-day, and be free from your heavy weight in a few weeks. Don't stop to figure or argue with yourself. I hope to receive your order by return mail, but if you cannot order write me frankly what stands in your way of securing a reduction.

From the third:

I really cannot understand why you do not order my wonderful treatment, and begin at once to reduce your fat that has so long been a bother and annoyance to you. . . . I have given much thought to your case [no case had been even mentioned in sending for the sample] and I feel sure if you still had any doubts of the splendid power of my remedy to reduce you of fatness, you would have written me fully at once. As I have not received any letter from you, I have concluded that you do not feel that you can afford to take the treatment at present.

I believe so positively that I can reduce you, and I feel so sure that you would appreciate fully the splendid reduction I will give you, that I am going to make you a strictly confidential proposition, by which you can secure the treatment you so much desire, and at the same time do me some good.

You certainly know a number of people in your vicinity who are annoyed by fat, and who would be glad to know of my treatment so if you will send me £1 3d and the names of six fat people, I will send you a regular full month's treatment. Remember I do not ask you to become my agent, and I shall not refer to you in any way when I write to your friends or acquaintances whose names you send me . . . if you have not got the money by you, it seems to me that it would be no more than right to go to some dear friend and ask a favor for a short time. Surely no one could refuse you when it means your health and happiness.

The "trial box" sent contained 16 tablets and 6 "casca beans," recommended as an aperient; the latter were not examined. The directions are "Eat one tablet before each meal and one at bed-time, thoroughly masticating them before swallowing." The tablets had an average weight of 70 grains each; analysis showed them to contain starch, dextrin, a sugar (glucose or maltose), protein, mineral salts, vegetable tissue, and a small quantity of an organic compound containing iodine. The proportions of the different constituents were determined as far as practicable, and the figures obtained, together with microscopical examination of the tissue, showed that the tablets consisted principally of wheat flour from which much of the starch had been removed, made into a coherent mass by means of malt extract or glucose; traces of the germ or embryo of the wheat were found. All this is, of course, a vehicle for the organic substance containing iodine; both thyroid gland (or its extract) and extract of bladder-wrack are characterized by containing iodine in combination in small quantity, and many tests were employed to ascertain which was present; no further evidence of extract of bladder-wrack was obtained, but there was a good deal of evidence, not quite amounting to positive proof, of the presence of a preparation of the thyroid gland. It is impossible to state the quantity present in each tablet, and it would convey no real information if it could be given, as preparations of thyroid may differ so widely in their activity and no standardization has as yet been attempted.

"NORMAL" PILLS.

These are supplied by the Normal Powder Company, Beauty Specialists, Southport, at 10s. 6d., a "trial box" being priced 6l. They are advertised in the following terms:

Too Stout!

Simply follow our instructions and we will guarantee a perfect cure. Our treatment is in every way as scientific and complete as that for which a London Specialist charges £21.

FREE OFFER!

To prove the great value of our remedy we will send you a large trial box—14 days supply—Free on receipt of 6d. P.O. to cover cost of packing and postage, etc.

The 6d. box was accompanied by a "chart, to be carefully filled up," for particulars as to weight, measures, etc., and the following to be signed by the purchaser:

I duly received your "free" sample of the "Normal" Pills quite safely, and since using them I have lost —— lbs. in weight. I quite understand that the cure cannot be completed without continuing the treatment for some time, and in conjunction with the London Specialist's diet instructions, which I promise to faithfully follow out. Please send me per return, carriage paid, in plain wrapper, a large box of the Pills and the instructions which cost you £21. I enclose you cheque or P.O. for 10s. 6d. as requested.

The box, which bore no label, contained 83 pills, which were coated with talc. After removal of the coating their average weight was found to be 1.28 grains; analysis showed them to consist of a mixture of extracts with vegetable powder. The powder consisted partly of liquorice root, with a large proportion of the tissues characteristic of ground nutshells, which, as mentioned above, is a regular adulterant of the lowest grade of liquorice powder; the microscope also gave indications of traces of bladder-wrack (*Fucus vesiculosus*), such as are contained in extract of this substance. Various tests indicated that the extracts present in the pill were those of cascara sagrada and bladder-wrack, the proportions being approximately as follows:

Extract of cascara sagrada	½ grain
Extract of *Fucus vesiculosus*	½ "
Powdered liquorice (adulterated) ...	½ "
Talc and moisture	½ "
in one pill.	

MRS. SEYMOUR'S TREATMENT.

This is supplied by Mrs. M. Seymour (London) at 15s.

An advertisement of this preparation is headed "A woman's offer to over-fat women"; some extracts from it are as follows:

I invite other ladies to participate in a discovery which reduced me 4 st. 8 lbs. and got rid of my ugly double chin. . . . . My remedy is a woman's cure for women only. Nobody but a woman could have discovered it, and it is offered to women only. . . . I am presenting 5,000 free boxes of my cure and copies of my book, *Obesity in Women*. I ask you to post the coupon below to me now and accept one of these free packages. . . .

The passages which follow are from the "book" in question:

Every one of the cures I have made is a proof of the all-important fact that obesity in women is a different ailment from corpulence in men. It has an absolutely different origin. . . . There is no case of obesity in which heart trouble has not been reckoned with. . . . It is heart failure that is responsible for 75 per cent. of cases which end fatally. What happens in these cases is fatty degeneration of the heart, which leads of syncope. . . .

Obesity is always due to imperfect nutrition. The food which is eaten makes fat instead of healthy tissue, muscle, bone, and nerve. Up to a certain point the process of nutrition (whereby the food is transformed into the constituents which make up the various parts of the body) is practically the same in women as in men. Beyond that point it is obviously an entirely different process, for the generative organs then become involved.

Now the all-important secret which governs the whole subject of obesity in women is this: Obesity is caused as the result of a species of mal-elimination in those stages of the nutritive processes wherein the organs peculiar to the sex are involved. In other words, the unhealthy, fat-forming process is set up because of the imperfect disposal of those nutrient elements with which the menstruous organs are concerned.

You are certain to have noticed how any marked stage or change in the functions of the menses will influence fat formation. For instance, girls who from childhood are inclined to fatness invariably become of normal proportions on attaining puberty, while at least 70 per cent. of the cases of obesity in women occur at the menopause, between the ages of 40 and 50.

Now there are changes connected with the organs under consideration which occur without any outward or visible signs—changes which induce obesity. These are changes which result in the fat-loading of the blood, and the depositing of fat in the different parts of the body as the blood circulates. . . . Please remember that I treat women only. I have no cure for corpulence in men.

The free sample which was sent with the book consisted of nine capsules containing a dark extract of bitter taste. The quantity in the sample was not sufficient for analysis. A "symptom form" was received with the sample; on sending for a further supply, a letter was received asking for certain particulars, and the symptom form was accordingly filled up as follows (the words in italics are the answers given):

Age.—*38.* Weight.—*13 st. 13.* Height.—*5 ft. 7½ in.* Waist.—*33 in.* Bust.—*42 in.* Hips.—*50 in.*

How long have you been about this weight?—*Gradually increasing for a year or two.* What parts are fattest?—*Abdomen and bust.* Constipated?—*No.* Have you backache or any kidney trouble?—*No.* Palpitation?—*No.* If married, how long?—*14 years.* How many children?—*3.* Age of youngest?—*5.* Any sediment or peculiarity about the urine, etc.?—*No.* Had miscarriage?—*No.* What is your general health and condition now?—*Fair.*

The medicine which was sent in reply was not capsules, but sugar coated tablets, 169 in number. Directions were given as follows:

There are sufficient tablets for you to take four each day, one just before each meal. If you only take three meals—and I strongly advise you to—take two tablets before the heaviest meal.

I want to impress upon you the great importance of keeping the bowels perfectly free all the time you are taking this treatment. For a day or two the treatment itself may keep the bowels open, but afterwards most ladies require an aperient. I have made many experiments, and I find there is only one way to keep the system clear without hindering the process of reduction. Pills, Epsom salts, cascara, etc., are quite useless. You must have genuine Vichy and Kissingen salines. You can get them in powder form of any good-class chemist, but they must be guaranteed full-strength, be saccharine-sweetened, and contain no sugar.

Take them, dissolved in water, half an hour before breakfast, as follows: A Vichy powder the first morning; none the second morning; a Kissingen powder the third morning; none the fourth morning; a Vichy powder the fifth morning; and so on. If you prefer to purchase the powders from me I can supply you with sufficient to last the six weeks' treatment for 3s. 6d. post free. I can guarantee these to be full strength, and exactly suited to the purpose.

Get into the habit of breathing deeply. Take at least a hundred deep breaths in front of the open window every morning on rising. Breathe deeply whenever you think of it. It will soon become habitual. For exercise take a gentle walk every day.

I have just one other suggestion to make in your case, and that is in regard to food. You will find on page 15 of my booklet particulars of the foods and beverages I avoided during the first month of my cure, and I strongly advise you to do as I did in this matter. I also advise you to eat only bread, cakes, etc., made from gluten flour; that is, flour from which the starch has been removed. Masticate your food thoroughly. Always stop eating just before you feel you have had enough, and wait until you have finished eating before you take anything to drink. Drink as much hot water as you can between meals.

The tablets were sugar-coated, and of a bluish colour externally. After removal of the coating their average weight was found to be 4 grains. Examination showed that they consisted, wholly or in part, of roughly ground up sugar-coated tablets or pills, the coating of which was coloured pink; since the coating of these had been ground in with the tablets, it was not possible to separate it, and the mass accordingly contained a good deal of sugar and starch; besides these, an extract was found agreeing, as far as its characters could be ascertained, with extract of bladder-wrack; a trace of iodine in combination was present, such as is found in preparations of bladder-wrack and of thyroid gland; also a very small quantity of boric acid, and a little vegetable powder. Part of the last-named showed the characters of the débris of a seaweed, though it could not be definitely identified with *Fucus vesiculosus*; a further small portion, amounting to an extremely small proportion of the whole, consisted of woody tissue which did not agree in characters with any drug in common use. The boric acid points to the probable presence of an animal gland or a preparation of such, and some collateral evidence was obtained of the presence of thyroid in small quantity, but definite proof of the latter is impossible in such a mixture.

THE AUTOBIOGRAPHY OF AN ANTHROPOLOGIST.

So many memoirs and volumes of reminiscences have flooded the literary market of late, that we are in danger of growing more than a little weary of this particular form of book-making. It is all the more pleasant, therefore, to come across such a book as Dr. John Beddoe's delightful *Memories of Eighty Years*,[1] for its author has succeeded where very many fail, and out of the storehouse of his recollections of a long life, crowded with varied work not unmixed with adventure, has compiled one of the most interesting memoirs published in recent years.

Born at Bewdley in Worcestershire, in 1826, "a quiet sickly boy, greedy of knowledge and not without originality," Dr. Beddoe seems to have given signs very early of the bent towards anthropology which has made him justly famous throughout the scientific world. His love for this particular branch of science has coloured all his life, and the "ruling passion" shows itself in every page of his book, in his comments upon the many countries he has visited, and the innumerable famous or interesting people he has met. It is in connexion with this hobby that he tells an excellent story of Scott, which he got from Sir Robert Christison. As is well known, Scott had a very lofty head, which made some of his brethren of the law call him "Peveril of the Peak." The artists who painted him regarded this as a deformity, and insisted upon eliminating as much as possible. Says Dr. Beddoe:

> Somewhere in the twenties Spurzheim visited Edinburgh and lectured to the Royal Society of that city. There had been a good attendance of members; and when the meeting broke up, the last to depart were Sir Walter Scott, Professor Christison, and a third person, whose name I have forgotten—it is not material. This man took up his hat, Christison took up his, and Sir Walter took up and put on the only remaining hat, which came down to the bridge of his nose. Taking it off again, he addressed the janitor in his native Doric:
>
> "Jone, that's no ma hat!"
>
> "But, Sir Walter, it maun be your hat, for there's nae ither."
>
> "Na, na, Jone, it canna be ma hat; it maun be the hat o' some great genius!"

It turned out that the hat belonged to a mathematician who is described as "anything but a genius."

Dr. Beddoe's adoption of the profession of medicine was due to the merest accident. He was originally intended for the Bar, but having read up physiological chemistry in view of the dyspepsia from which he often suffered, he hit upon a method of estimating the relative value of nutriments which was in advance of any plan known or used at that time.

> It was in effect the method of calories, though the word had not then been coined, nor, as far as I know, had the idea been conceived.

The result of these studies was that the embryonic lawyer was alluded to in a paper which appeared in the *Lancet* as "Dr. Beddoe, of Bewdley," and this error ultimately led to his following the advice of his connexion, Sir Charles Hastings, founder of the British Medical Association, and entering University College, London, as a medical student. It was in Edinburgh, in the summer of 1854, that Beddoe, who had taken his degree of M.D. a year before, narrowly escaped being the innocent cause of a death which would have affected very materially the entire human race. He had persuaded the present Lord Lister to climb Salisbury Crags, but half way up the latter, who at that time was not in the best of health, became giddy, and they were obliged to descend.

> I suppose much experience of the place had made me careless. A large fragment came away in my hands, and the stone and I both fell upon Lister. He was looking up at the time, and squeezed himself cleverly against the face of the cliff; but the huge stone struck him on the thigh with a grazing blow, and then whirled down the talus below with leaps and bounds, and passed harmless through the middle of a group of children who were playing hopscotch at the bottom right in its way.
>
> Lister was badly bruised, but no bone was broken. I went off at once to the infirmary and procured a litter and four men, wherewith I returned to Lister. As our melancholy procession entered the courtyard of the surgical hospital, there met us Mrs. Porter, the head nurse then and for many years after. She wept and wrung her hands, for Lister was a universal favourite.
>
> "Eh, Doketur Bedie! Doketur Bedie! A kent weel hoo it wad be. Ye Englishmen are aye sae fülish, gaeing aboot fustlin upo' Sawbath."
>
> I do not suppose Lister ever whistled on Sunday. I am certain I did not, for I never could whistle in all my life; but we had suffered for a national offence.

The result of this adventure was a fortnight in bed for both men and the complete loss of his nerve for climbing on the part of Beddoe, who only regained it after resolutely returning to the scene of the accident and forcing himself to undertake the entire ascent.

Dr. Beddoe's stay at Edinburgh was marked by another incident which is worth quoting. He says:

> Before leaving Edinburgh I had the good fortune to secure the reversion of a clerkship or house-physician's post in the infirmary, under Dr. Andrews. . . . Concurrently with my settlement in warm quarters in the thickly-walled infirmary, where I always had a fire in my room, my pulmonary symptoms finally vanished. This fact does not very obviously square with some modern theories or practices. But both now and previously I usually slept with a window not quite closed.

It may, perhaps, be gathered from this that Dr. Beddoe is no fanatical devotee of the open-air treatment. This impression may be confirmed by the following story. Many years afterwards, when he was President of the Health Section of the Social Science Association at Edinburgh, he mentioned in his opening address that the substitution of well-built and consequently ill-ventilated cottages for rude but airy hovels appeared to have been followed in Athol by an increase in the mortality from consumption. Dr. Farquharson, who had seconded the vote of thanks, walking away with the speaker afterwards, said to him:

> Beddoe, I am eternally obliged to you! I was thinking about spending money on rebuilding all the cottages on my Aberdeenshire estate, and now I won't touch one of them.

In 1854 Beddoe with a number of fellow students volunteered for service in the war against Russia, and he gives a vivid account of his experiences in Asia Minor and the Crimea. The civil hospital staff, as it was called, suffered a good deal from the want of efficiency at the War Office. Some of the mistakes, says Beddoe, were due to the manifold divisions and the deplorable jealousies between the various official departments concerned, and the effect produced on his mind was that

[1] *Memories of Eighty Years.* By John Beddoe, M.D., LL.D., F.R.S. Published by J. W. Arrowsmith, Bristol, and Simpkin, Marshall, Hamilton, Kent, and Co., London. 1910. (Pp. 322. Price 7s. 6d.)

things would never go on rightly till the War Office was burnt down, and that if a few of the clerks were inside at the time it would be so much the better. Beddoe never fully appreciated the phrase "red tape" till he had seen the accumulation of dusty papers that filled up the passages of the War Office. Once hours were wasted in searching for a document which was thought absolutely indispensable by the officials, and which was ultimately discovered in a waste basket between the legs of the chief!

Of his travels in Holland, Germany, Austria, Italy, and other countries, Dr. Beddoe has much that is interesting to say. When he visited Vienna the medical school was at the zenith of its reputation. Its lecture rooms and the wards of the great hospital were thronged with foreigners. Beddoe himself was acquainted with men who belonged to at least sixteen European nations, not including Germans of various districts, besides Americans and Asiatics, who had gone there to supplement their experience and perfect their knowledge. He gives the following description of the famous Skoda:

> He was a podgy, round-faced little man, with small dark eyes and a somewhat Mongoloid aspect. He had the reputation of despising drugs, but that was really not the case; the fact was that he used them only when the indications for their employment were distinct, but not as a matter of routine. Thus standing at the bedside of a fine vigorous young peasant he would say, Gentlemen, this patient from acute left pneumonia suffers. Some in such a case would mercury exhibit; others tartarized antimony would employ; but seeing that this man well constituted is, and well nursed and cared for will be, it is to be expected that he without any of these drugs perfectly well and that in short time will become. Wherefor (to his assistant) Herr von Speckhausen, recipe, etc. And he would proceed to order a solatium of diluted raspberry syrup.

Beddoe tells an amusing story of a meeting of the Vienna Medical Society when somebody read a paper upon koumiss (fermented mare's milk) and drew an enthusiastic picture of its virtues as a cure for pulmonary consumption. Several speakers followed, one alleging one probable cause for its efficacy and one another. Last of all, Skoda delivered himself thus:

> Gentlemen,—Respecting these wretched Bashkirs, how that owing to their of this fermented mare's milk copiously drinking, from phthisis almost or altogether free they be, has this night very much been said; but for my part I do most powerfully and constantly believe that, in addition to all the other miseries of their God-forgotten condition, from phthisis they not only as much as we, but even much more do suffer.

This dogmatic utterance brought the discussion to an end.

On his return from the Continent in 1857 Dr. Beddoe settled at Clifton to wait for practice as a physician. He was appointed to the staff of the Bristol Infirmary, and found some compensation for the number of his outpatients in the opportunities of ethnological observation they afforded. He always noted down the name, age, sex, conjugal status, birthplace, and colour of hair and eyes of the patient, and the resulting statistics led him to the conclusion that conjugal selection might have much to do with change of type. In 1863 he published a paper based on these observations, entitled, On the Supposed Increasing Prevalence of Dark Hair in England. This was read by Darwin, who wrote to the author that his conclusion would be of considerable service to him if absolutely trustworthy. But he wished to know, first, whether he could suspect any flaw in the reasoning. On thinking the matter over carefully, Beddoe found such a flaw, and acquainted Darwin with it. It was connected with the varying age of the material; hair continues to darken long after adolescence—in fact, until it begins to grizzle. Darwin, therefore, did not use the figures. This, says Beddoe, is one out of the innumerable instances of the caution and absolute candour of the author of *The Origin of Species*.

Among the persons of whom Beddoe speaks was Miss Frances Power Cobbe, whom he describes as "a large person in every way, large in body, heart and soul, full of all sorts of generous instincts, and by no means an ascetic." She assisted Miss Mary Carpenter in her philanthropic work at Bristol. Miss Carpenter used to buy a leg of mutton once a week, have it roasted or baked and served hot one day, after which she fed on it till it was finished. The simple life in this form did not suit Miss Cobbe, and she and Miss Carpenter parted company after a few months. Some years later Miss Cobbe became a violent fanatic on the subject of vivisection. She had a beautiful dog called Hajji, which she loved with all the ardour of her nature. Dr. Beddoe goes on:

> We always supposed that the idea of Hajji's possible falling into the hands of a vivisector was too horrible to her, and prompted her views and actions on the subject. Anyhow, she cast me off entirely. Not that I personally was a vivisector, but that I was a member of an accursed profession, and for years she never spoke to me. I took no notice of this, and in the course of years she came round and we resumed our very friendly intercourse as if nothing had happened.

The eagerness of the scientific observer sometimes overpowers any tact which he may possess. We have heard a story of a distinguished anatomist who, noting something that struck him as an anomaly on the neck of a lady in a ballroom, startled her and the company by proceeding to make an examination of the part. Dr. Beddoe's anthropological ardour never seems to have displayed itself so inopportunely, but he tells a story against himself which shows that his enthusiasm occasionally showed itself in an unconventional fashion.

At a dinner given by the Lord Provost of Edinburgh to the council of the British Association he sat next to Sir William Huggins, whom he describes as perhaps the ugliest man in the Royal Society—"small, swarthy, pig-eyed, and potato-faced, he had only his fine cranial development as a redeeming feature." To him Beddoe propounded the view that scientific men are generally ugly. Naturally enough Huggins did not agree. Beddoe asked him to look down the rows of profiles along the table; Huggins did so, scanned them deliberately, and then said that he believed Beddoe was right. Beddoe adds that in scientific men, especially those with much genius or originality, the features are apt to be irregular. "It is the men of action—dragoons, huntsmen, engineers—who are often handsome."

Dr. Beddoe's position in the scientific world brought him acquainted with most of the leaders in science of the Victorian era. But he knew many persons prominent in various spheres of intellectual activity. He was acquainted with Francis Newman, John Bright, William Froude, brother of James Anthony, and a distinguished engineer, Dean Farrar, and many others. Of Freeman, the historian, he saw a good deal, and, unlike most of those who did so, always got on well with him. John Addington Symonds was his patient.

He tells the following story of Virchow, which he got from Dr. A. P. Stewart, and which he does not think has ever before appeared in print:

> Queen Victoria, with Sir William Jenner in attendance, King William of Prussia (afterwards the first German Emperor), and Professor Virchow, then a leading Radical in the Prussian Parliament, were all staying at Ems. Jenner had been telling the Queen what a great man Virchow was, and the Queen had spoken with King William on the subject. Next day the King, recognizing the Professor on the parade, called him up, and told him what the Queen had said of him, "a Professor in my University of Berlin."
>
> "And now, Professor," he added graciously, "one little word! Don't you think it might be better if you confined yourself to these scientific subjects, in which you have earned so great a reputation, and avoided politics, in which, you will pardon my saying, you do not equally shine?"
>
> "Your Majesty," said Virchow, "I do not see how I can possibly answer you unless you graciously permit me to tell you a little story."
>
> "Say on, Herr Professor."
>
> "When your royal ancestor invaded France in 1792, he encountered the enemy at Valmy, where a French artilleryman, after greatly distinguishing himself, was taken prisoner. Your royal grandfather, always ready to give honour to valour, desired that the Frenchman should be brought before him. When this had been done, he said, 'You appear to be a very valiant man, but it is a pity that you should exert so much gallantry on the wrong side.' 'Citizen William!' replied the Frenchman, 'O let us talk about something else, for on that subject you and I will never agree.'"

To us the most interesting part of this story is that the King of Prussia was obviously ignorant of the existence of his most distinguished subject. Even Queen Victoria had apparently to learn about Virchow from Sir William Jenner. Had he been a Professor of Physical Culture he would doubtless have been better known to Royalty.

But we must refrain from quoting more of the stories of which Dr. Beddoe has so abundant a store. His records of the sights he has seen and his recollections of the many celebrities he has met, both at home and abroad, interesting as they are, are not the most attractive feature of his book. What makes it so delightful is the kindliness and breezy good humour with which Beddoe writes, his cheery outlook on life, and his utter lack of the "envy, hatred, and all uncharitableness" which so frequently mar a work of this kind. There is also a total want both of the vanity and egotism and of the intolerance which are characteristics of many scientific autobiographies. Dr. Beddoe thinks nothing that is human foreign to himself, and in reading his modest narrative one almost forgets that one is reading the life of a man on whom learned societies throughout the world have showered honours.

THE ACCIDENT COMMITTEE'S REPORT AND CERTIFYING SURGEONS.

The volume containing the evidence on which the Home Office Departmental Committee on Accidents in places under the Factory and Workshops Act has based its recent report[1] has not yet been published, so that we are not in a position to note how far the findings are in accord with the views of witnesses, but it appears somewhat strange that an attempt should be made to deal with the causation and prevention of factory accidents without obtaining the fullest information possible from the class of surgeons whose duty it has been since 1844 personally to investigate every reportable accident. It is true that one certifying surgeon, from a moderately-sized manufacturing district, was called, but as his experience, however valuable in itself, is practically confined to one industry, his evidence can scarcely be regarded as sufficient to indicate the common views of this branch of the profession. The want of this variety in the technical evidence taken is well shown in the part dealing with the accidents occurring during the cleaning of machinery in motion, where the opinions of employers and employees appear in many cases to have been much at variance, and where an unbiassed view as to the actual danger in cleaning certain parts of machinery could easily have been supplied from knowledge based on a study of machines solely from the point of view of their capablilities of causing injury to the workers. Further instance is to be found in the grave manner in which the committee discusses the possibility of the increase of "blood poisoning" being due to the substitution of vegetable for mineral oil in lubricating, and eventually confesses its inability to give any satisfactory explanation. We can only observe that it would have been easy for a properly qualified witness to explain that, as no accidents were reported previous to 1906, unless they caused absence from work during the first three days after the accident, there was not the same chance of septic wounds coming to light as there is now, when absence of a whole day any time after the accident qualifies for notification. It is particularly unfortunate that the committee should, on the partial and inadequate class of evidence it took, come to the definite conclusion that the time has now come when the certifying surgeon's investigation can be wholly or mainly disposed of. Its reasons may be stated as follows:

1. The investigation is superfluous because the inspectorate is now so closely in touch with factories.
2. The inspector can judge from the occupier's report whether his personal investigation is required, whilst the certifying surgeon's report seldom adds anything which it is necessary for him to note, and does not generally dispense with the need for his visit.
3. As the certifying surgeon is not an expert in accident risks, his report cannot do away with the visits of the inspector if investigation is required or preventive measures called for.
4. That the certifying surgeon is not called upon to report on the cause of the accident, but on the "nature and cause of the death or injury caused by such accident," and that such information will seldom be of use to the department.
5. That the sum of £9,000 to £10,000 annually expended in this way might be more usefully directed into other channels.

The validity of these arguments cannot be admitted. As regards the first, it would appear from page 51 of the report that the inspector is so much in touch with the factories that his visits to each average 0.75 per annum.

Concerning the second, the inspector has never yet been without the certifying surgeon's report, and has, therefore, never felt the necessity of relying upon the occupier's notice in forming his judgement. We venture to suggest that if he were put to the test he would very soon feel that want. The important items as to causation, usual occupation, precise occupation at the time of accident, nature and degree of injury, are rarely given with anything like correctness, and no amount of clerical work could compensate for the present personal investigations.

According to our information the inspector does not, as a matter of routine, pay his special visit until after receipt of the surgeon's report, and then only if he judges from this document that such visit is advisable.

The paragraphs numbered 3 and 4 appear to confuse the issue. If the certifying surgeon, who personally investigates every reportable accident in his district, is not an expert on the degree of risk attached to the processes concerned, it may be asked who is? Certainly not the inspector, whose duty it is to devise means of preventing such an occurrence in the future after the cause has been accurately ascertained by the surgeon and pointed out by him to the inspector. The surgeon's duty in the matter we admit to be accurately stated, and we do not wish to claim anything further for him. It was very well laid down by Sir Victor Horsley, who formed one of a deputation which waited on the Under-Secretary of State in 1905 on this particular subject, that the causation of the injury inflicted by machinery constituted the causation of the accident, and that to discover this the injured person must be interviewed and particulars of the injury ascertained, the machine and process being also examined. He further stated that the skill of the surgeon must be brought to bear in deciding to what extent any particular part of the machine could cause the particular injuries noted, and was very definite in his opinion that it was not within the province of a mechanical inspector to decide upon the causation of machinery accidents producing surgical injury.[2]

As regards the utility of the report to the Factory Department, it is worth while to draw attention to the remarks of a prominent inspector, who now holds a very high position, made at the annual meeting of the British Medical Association in Leicester, when the subject of industrial accidents was being discussed. This gentleman quite agreed as to the importance of reports from certifying surgeons on industrial accidents, and held the view that, owing to the intimate and personal relations between these gentlemen and employers and workpeople locally, there might exist a greater opportunity for unfettered inquiry than was possible in the case of the inspectors.[3] As for the contention that the certifying surgeon is no check on the occupier, is it likely that, if the occupier became the sole channel of information, he would show too clearly the necessity of a visit by an inspector, who is generally supposed to have views on the fencing of machinery?

It is somewhat of a relief, however, to find that the committee is of opinion that the certifying surgeon's examinations for certificates of fitness are extremely useful in preventing children and young persons from working at dangerous processes, though it somewhat contradicts its previous views by emphasizing the necessity of the certifying surgeon understanding the work at which an applicant is to be put, and of his being able to define the parts of a factory or machine at which the applicant should be occupied. We venture to suggest that this knowledge of process, which has been found so extremely useful in the certifying surgeon, has been acquired mainly from his systematic investigation into accidents.

We trust, in conclusion, that the views on this subject here expressed may be of service to those who will probably be asked, as a result of this inquiry and report, to attempt some doubtless very necessary legislation for the prevention of this class of accidents.

[1] To be purchased directly or through any bookseller from Wyman and Sons, London; Oliver and Boyd, Edinburgh; and E. Ponsonby, Dublin; price 7d. [Cd. 5535.]

[2] British Medical Journal, July 1st, 1905, p. 52.

[3] Ibid., October 14th, 1905, p. 932.

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SATURDAY, APRIL 8TH, 1911.

CHOLERA PROSPECTS IN EUROPE.

THE unusual prevalence of cholera in Russia and in some parts of Southern Europe in the autumn of last year makes it a matter of no little interest and importance to review the present position in the light of the histories of previous epidemics. During the nineteenth century Asiatic cholera spread from India to Europe on no less than six occasions. In one of these epidemics over a million deaths are stated to have occurred in Russia alone, while 53,000 deaths were recorded in England. In the earlier epidemics the disease, as a rule, spread overland through Afghanistan and Persia to South-Eastern Russia; thence it overran Europe and was usually carried also to the Western Hemisphere. The third epidemic, however, spread from Western India through the Persian Gulf, while a fourth was carried by sea from Bombay to Mecca, and invaded the South of Europe through Mecca.

At the present time the oversea routes are so carefully safeguarded that the danger of the spread of cholera in this way is much diminished. On the other hand, the more common overland route is much less easy to control, while the increased rapidity of communications, due to the steady progress made in the construction of railways, has added considerably to the liability of Europe to invasion by cholera. The first great European epidemic of which we have accurate records originated in Bengal in 1826, reached Afghanistan in 1828, and Persia in the following year. As it did not invade European Russia until 1831, it took five years to cover this distance. In 1867 cholera broke out among the Hurdwar pilgrims in April, was epidemic in Afghanistan in July, and reached Persia by the end of the same year. In 1868 it was very widespread throughout Persia, and reached Russia during the following year. Again, in 1892, the disease followed the same route. Beginning at the Hurdwar fair in March, it reached Afghanistan and North-Eastern Persia in May, the South of Russia, by way of the Trans Caspian Railway, in June, and Hamburg in July. This outbreak thus spread from India to Europe in as many months as the 1826–31 epidemic took years to cover the same ground, so greatly had the construction of railways altered the pace of communications. During the next ten years Europe escaped any serious visitation by cholera, but in 1904 the disease reappeared in Southern Russia along the course of the Volga, the artery through which the disease usually enters Europe by the overland route. It recurred in 1905 in the same country. Again in 1908 cholera was unusually prevalent in India and reached Russia in the autumn. In the following year it was again widespread in Russia and 6,000 deaths were recorded by the end of August; a small outbreak occurred in Holland. During last year the disease assumed epidemic proportions in Russia, nearly 200,000 cases and 90,000 deaths having been reported by the end of September, or nearly as many as occur in the whole of India in some years. A serious outbreak also took place in Italy, causing 1,000 deaths in the Naples district in September. Turkey was widely affected in the autumn months; the disease also broke out in Portugal, while Madeira was severely affected a little later. Thus by the end of 1910 cholera was more widely spread in Europe than at any time since 1892, and Southern Europe was affected to a greater extent than in any year subsequently to the invasion from Egypt in 1884. The position last year is also very similar to that in 1870, which was followed in the next two years by widespread cholera in Europe and subsequently in Canada and the United States.

During the last forty years only sporadic cases have occurred in England, the system introduced by Simon of inspecting all vessels arriving from infected ports, isolating suspicious cases and keeping a watch on the remainder wherever they went, having proved very satisfactory in preventing cholera from gaining a foothold in this country, while not interfering to any serious extent with trade. Since that time the sanitary condition of English towns, especially as regards water supply, has been so greatly improved that there need be little fear of any serious outbreak in Great Britain during the ensuing summer. Unfortunately, the same cannot be said of Russia and some of the southern parts of Europe. As is usual, there has been a marked lull in the disease during the winter months; but if history repeats itself, there is good reason to fear a recrudescence of the disease in the hot months of this year in those parts of Europe which suffered last autumn, and grave danger of the extension of the infection to other areas. The comparative mildness of the past winter makes a recrudescence of the disease all the more likely. As we have previously pointed out, when the Medina Mecca Railway is completed and hosts of pilgrims are rapidly carried to Turkey, the invasion of Europe by cholera will be still further facilitated.

We have, then, two opposing factors in operation at the present time. First, increased rapidity of communications, especially overland, bringing the infection of cholera more frequently into Europe; and secondly, improved sanitation, tending to lessen its ravages. Unfortunately, the latter factor is least in evidence in just those countries which are most liable to be first attacked, and to become foci from which the disease may spread further west. Quarantine measures have over and over again proved futile in preventing the spread of cholera overland, so it behoves all threatened countries to lose no time in providing a pure water supply as the most practical safeguard against epidemic cholera. The serious outbreak of cholera in London in 1853 led to the passing of the Metropolitan Water Supply Act, which made London the healthiest of the great cities of the world. Should the present invasion of Europe by cholera lead to similar measures in the less advanced communities it may yet prove to be a blessing in disguise.

CONDITIONS GOVERNING THE BODY TEMPERATURE.[1]

THE conditions which govern the temperature of the body have been systematically studied by Dr. J. Lindhard, the medical officer of the Danish arctic expedition to the north-east coast of Greenland in the years 1906–8. During a great part of this period Dr. Lindhard must have fairly bristled with thermometers,

[1] *Danmark Expeditionen Til Grönlands Nordöstkyst*, 1906-8, vol. iv. No. 1.

judging from the numerous temperature charts and tables which he has published illustrating various observations on himself. Some of these are of exceptional interest. The rectum was found to be the most reliable site for measuring the body temperature, but it does not give "an exact expression for the body temperature," as claimed by one author. It is, in fact, merely an exact expression for the rectal temperature, and the readings of the thermometer vary according to its position in the rectum. Thulstrup has shown that the temperature increases from the sphincter upwards, and that the highest and lowest readings generally give a difference of 0.4° to 0.9° C., the difference being even as great as 1.1° C. Occasionally Erlandsen, again, has found in nervous patients that the temperature in the region of the sphincter is higher than at a point further up the rectum, owing to contractions of the sphincter. Lindhard found the temperature in different parts of the rectum to vary slightly, but these differences were not uniform. Most of these temperatures were taken in the ampulla recti, in the lying down position, which usually gives a lower reading than the standing position.

The relation of the rectal temperature to the metabolism of the body, as measured by the amount of CO_2 given off, was found to be intimate, the curves illustrating the two conditions following a similar course. The slight variations which appeared were inevitable, as the rectal temperature is a local one, and is consequently subject to influences which have no direct connexion with the metabolic changes, which in their turn are not completely expressed by the amount of CO_2 given off.

As digestion is a comparatively continuous process, its influence on the temperature of the body is difficult to gauge. But at mealtime and directly after, when the process is most active and the rectal temperature is correspondingly higher as a rule, the average difference before and after a meal is 0.375° C. The rise of temperature is greatest when sleep has preceded a meal, and it is least when a meal follows exercise. The mouth temperature also rises at mealtime, but this rise is largely independent of the rise of the rectal temperature, as the former shows greater fluctuations than the latter; the mouth temperature may even rise when the rectal temperature falls. The average rise of the mouth temperature is 0.5° C. The nature of a meal affects the mouth temperature considerably. Warm food highly seasoned may even raise the mouth temperature above that of the rectum. Hard ship's bread, which made great demands on the masticating organs, never raised the mouth temperature much, and the writer therefore concludes that mastication and the exercise of the masticating muscles are subordinate factors in the observed changes of temperature. The local rise of temperature in the mouth is undoubtedly due to the circulation in the mucous membrane of the mouth being affected by thermic and chemical stimulants. The reduction of the heightened temperature of the mouth takes a few hours in a warm room; in the cold the fall may take place in a few minutes. The temperature of the skin of the forehead was also found to increase during a meal, but as this temperature varies considerably with the temperature of the surrounding air, with brain work, and other factors, it is difficult to estimate accurately; a rise of 0.85° C. is probably the most common.

The relation of the mouth temperature to muscular exercise was found to be quite inconstant. As a rule, it does not rise during work indoors, while out of doors it falls in spite of work. Even energetic indoor exercise may fail to prevent the fall of temperature which occurs shortly after a meal. The mouth temperature, again, does not follow the course of the rectal temperature during sleep, nor is it lowest on waking, as is the case with the rectal temperature. It is lowest in the cold air, and in this respect it resembles the skin temperature, which, again, is only slightly affected by work. Brain work, however, raises the temperature of the skin of the forehead several tenths. A record of the temperatures of the rectum, mouth, and skin of the forehead taken before and after an hour's reading in a temperate atmosphere showed a marked fall in the two former, and no change in the latter.

The temperature of the surrounding air affects not only the skin and mouth temperatures, but also the rectal temperature, though to a less degree. Thus, in a series of rectal temperatures taken on waking, when the temperature of the air ranged from 12° C. to 30° C. below zero, the average rectal temperature was 36.26° C. In the summer, when the temperature of the air averaged 0° C., the rectal temperature of the same individual averaged 36.52° C., and when he changed his sleeping quarters to the engine-room his rectal temperature on waking rose to an average of 37.0° C. In the Arctic summer the morning temperature of the mouth and rectum are almost equally high (about 36.5° C.), while in the winter, owing to the fall in the atmospheric temperature, the mouth temperature is considerably lower than that of the rectum. Lindhard confirms Agnes Bluhm's observation that the loss of heat from the mouth takes place directly through the soft parts, and not through the inspired air. He found also that the rectal and skin temperatures differed to such a degree that on going for a walk with the thermometer 36° C. below zero the rectal temperature rose, while the temperature of the skin fell to a point at which "the dismal white spots" of frostbite appeared.

The axillary temperature resembles the skin temperature rather than that of the rectum in its dependence on the temperature of the surrounding air. This is also borne out by Kraft, who found differences of 0.5° C. to 1° C. between the right and left axillary temperatures of the same individual—a difference that cannot easily be explained otherwise than by admitting the influence of the atmospheric temperature.

The view that the temperature curve follows a fixed course in each individual, or, as Finsen puts it, "belongs to the mysterious land of periodicity," is scouted by Lindhard, who concludes that it follows a course dependent on the physiological functions the range of which we may consciously control and limit. Thus the clergyman, the navvy, and the sailor show temperature curves which vary with the occupations and mode of life of each. While the rectal temperature, with the slight deviations already indicated, represents the body temperature, the mouth temperature rises and falls with the temperature of the atmosphere, which must be constant if the curves of the mouth and rectal temperatures are to be similar. It is, therefore, illusory to fix the normal mouth temperature at any given figure, such as 37.2° C., when it varies so much with the climate and season of the year, and, as in Lindhard's case, ranges from 37.45° C. to 34.58° C., which is a difference of 5.17° on the Fahrenheit scale.

NOSTRUMS FOR OBESITY.

ALTHOUGH the extraordinary range of curative power claimed for many secret remedies makes it impossible to connect them closely with any particular set of symptoms, yet it might be maintained with some show of probability that a direct relation could, speaking generally, be detected between the kind and number of proprietary medicines which are largely advertised and the greater or less prevalence of various complaints from which the public suffers or believes that it suffers, for there is a fashion in diseases as in frocks.

The nostrums reported on by the analyst this week (page 823) relate to obesity. The narrowness of the field compels the advertiser to keep to a fairly circumscribed set of symptoms to which, by the use of weighing machine and tape measure, it is possible to assign numerical values. It is worthy of remark that although two other reports on this particular class of secret remedies have been published during the last four years, so many new ones are being pushed forward that a third report has been called for; the inevitable conclusion appears to be either that obesity is increasing in prevalence, or that a consciousness of its disadvantages and a desire to get rid of them are becoming more general. In very many instances the examination of other series of secret remedies, advertised for the cure of other disorders, has revealed, in spite of variations in outward appearance, a curious similarity in constitution. Although in the case of most of the secret remedies advertised for obesity the ill-defined chemical characters of the ingredients generally used has made it impossible in most cases for our analyst to give the quantities in each in a dose, he has been able to show that there is in their composition a similarity even greater than usual. Extract of bladderwrack is apparently the chief ingredient of all but one of those now dealt with; in the exception thyroid extract, which used to have a considerable reputation as a reducer of superabundant fat, was almost certainly present. In the previous series[1] bladderwrack also figured largely, and in two instances bladderwrack and thyroid extract appeared together. In some of the earlier series, however, the chief ingredient appeared to be citric acid. As was then pointed out, bladderwrack (*Fucus vesiculosus*) is a common seaweed, containing sodium salts in large quantity with a small proportion of iodine, much less than many other seaweeds. In Ireland it was once thought to be good for pigs, making them fat; how it has acquired a reputation for producing the opposite effect on human beings is not very clear, but any such effect must be very slight and uncertain.

It is not only in the composition of their wares that the makers of these preparations show uniformity of practice; even the devices used in advertising and selling them have a strong family likeness. The plan of giving away a free sample, and accompanying it with statements as to the importance of following it up with a "full treatment" are characteristic of nearly all the advertisers dealt with. It is, moreover, quite in keeping with what we are accustomed to find that each should advance the claim that his own preparation, though found on examination to contain the same drug as those of his rivals, is totally different from all others, and that each should claim to be the discoverer of this wonderful substance. The absurdity of the claims becomes more striking when they are brought together. The first of the nostrums described is put forward with the assertions, "I know I have found a cure at last." "My method is unlike any other." The next maker says that his pills "in any case will do more to reduce corpulency than any other remedy extant," and they "present a striking contrast to many so-called remedies so freely offered at extravagant prices to the public, some of which are useless and others dangerous." A third calls his "the only safe and certain remedy," "the most remarkable scientific discovery of the present age," and guarantees to cure; and so on. Such vague titles as "specialist" and "certified chemist" are so used as to imply that they are qualifications; and the usual feature, exorbitant price—the mainspring of the whole business—is, of course, conspicuous, drugs costing a few pence being supplied for various sums up to £2 1s. 1d. One advertiser appears to have hit on a little novelty with the claim that "my remedy is a woman's cure for women only. Nobody but a woman could have discovered it, and it is offered to women only," while a certain amount of originality must be allowed to the statement, emanating from the same source, that, "what happens in these cases" (of heart failure) "is fatty penetration of the heart, which leads of syncope."

[1] *Secret Remedies: What they Cost and What they Contain.* London: British Medical Association, 429, Strand. 1909. (Price 1s., post free 1s. 3d.)

COMMITTEE ON FRACTURES.

IN consequence of the recommendation made by the Section of Surgery at the last Annual Meeting on the conclusion of the discussion on the operative treatment of simple fracture, the Council has appointed a committee to inquire into and report on the ultimate results obtained in the treatment of simple fractures with or without operation. The discussion emphasized the need for inquiry into this point in practice, and in this issue (p. 843) will be found a letter signed by the officers of the Association concerned, the Chairman of the Science Committee, the President of the Section of Surgery of the Annual Meeting in London, and the Chairman of the Special Committee on the Treatment of Fractures, inviting the co-operation of surgeons in the inquiry. It will be noted that the committee asks for information as to cases of simple fracture of the long bones occurring within the last five years. Members of the profession who have records of such cases are invited to help the committee by permitting access to these, and by assisting it to follow up the patients. The committee is specially desirous of obtaining the co-operation of the surgical staffs of hospitals in the large towns. Communications or inquiries should be addressed to the Medical Secretary of the Association, 429, Strand, London, W.C.

SHIP SURGEONS AND THE BRITISH MEDICAL ASSOCIATION.

THE unsatisfactory conditions under which surgeons of passenger ships are too often called upon to serve has frequently been the subject of comment and correspondence in these columns for a good many years past. A correspondence on the subject took place last year, and demonstrated that the defects to which this branch of medical practice is subject have not diminished. In consequence of representations received from many members of the profession, and of the favourable response to an appeal to ship surgeons and ex-ship surgeons who were desirous of some special form of organization, which appeared in

the British Medical Journal on July 9th, 1910, the Medico Political Committee has appointed a special Ship Surgeons' Subcommittee, which has just held its first meeting. It consists, in addition to representatives of the Medico-Political Committee, of Drs. Elliott and Metcalfe Sharp, who took an active part in the recent correspondence, and Dr. F. MacCarthy of Plymouth. The subcommittee at its recent meeting considered various ways of getting into touch with ship surgeons. As a preliminary step it is intended to appoint correspondents at the chief ports of the kingdom, who will keep the subcommittee in direct contact with ship surgeons, and who will be able to ascertain what are the special questions to which they desire consideration to be given. The chairman of the subcommittee (Dr. J. H. Taylor) will be glad to receive suggestions as regards the work of the subcommittee from those who are specially interested in the matter. Communications may be addressed to him, care of the Medical Secretary British Medical Association, 429, Strand, London, W.C.

SPA TREATMENT IN BRITAIN.

It has been made a reproach against the health resorts of this country that they have failed to achieve the success of their competitors in foreign lands because among other reasons, they have not devoted sufficient attention to details, other than those pertaining to the use externally and internally of the waters, with which Nature has provided them as bountifully as their rivals abroad. It is sometimes alleged that the climate of Great Britain is not so well adapted to an out-of-doors life for an invalid as that of some other countries where certain famous spas are situated. On this account, it is held that many of the amenities possible and customary abroad are impossible at home. To some extent this is true, but the disadvantage is by no means so great as some apologists would have us believe. Moreover, even when full weight is allowed to the climatic uncertainties from which we suffer, it may still be maintained that, in other respects, our health resorts are "behind the times." The main factor which contributes to this inferiority is lack of municipal enterprise to develop certain sides of spa life. At how many British spas is there provision of music of such excellence as to make it a feature of "the cure"? At how many are adequate inducements afforded for the early promenader to sip the waters, with a subsequent saunter to some neighbouring café or restaurant, at which the simple morning meal may be enjoyed either out of doors or under cover, according to circumstances of weather and inclination? Where are sufficient efforts made to bring to bear on natural conditions the skill and ingenuity that is necessary to produce picturesque and aesthetic effects such as will tempt those in search of health to take the exercise so essential to their recovery? These and many other adjuncts to spa treatment are too often either wanting or inadequate; though the weather may be made the scapegoat, the true stumbling-block is parsimony. If municipal authorities would but apply to civic development the methods which are a necessity for the success of every ordinary business enterprise, and such as are adopted at the leading health resorts abroad, the climate would, for many months in the year, offer no greater obstacle in England than it does in many parts of Germany and France. It is no doubt true that the fashion of the day makes it with many people an accepted part of each year's programme to drink the waters at one or other of the foreign spas, and the impression is deeply rooted, among ladies especially, that our health resorts at home, though good enough in a way, are second best only, and not to be thought of unless circumstances of convenience or economy necessitate a compromise. We are convinced that, given the whole-hearted and liberal devotion of the municipality and of the local profession to a thorough emancipation from traditional practices, many of our home spas would rapidly acquire such a repute as would not only attract the British public but would also induce invalids from other countries to avail themselves of the curative properties of its waters and of the many attractive features which characterize life in England. At Bath, where comparatively recently a commendable spirit of enterprise provided a complete institute for medico-mechanical treatment, the local Branch of the British Medical Association has now adopted a "special Bath diet" for those undergoing the cure, and has persuaded the leading hotels and boarding-houses in the town to arrange that this diet shall always be procurable. Next to the use of the waters themselves, the question of diet is of all the most important, and in this country this essential element of a spa cure has hitherto been far too much left to look after itself. Patients have no doubt been told in a general way what they may and what they may not eat and drink, but definite lines have not been laid down and insisted upon in anything like the systematic way customary abroad. It would probably be better that every patient had his diet chart, like his drug prescription, supplied by his medical adviser according to the indications of his personal condition; but a "special diet" is better than no diet at all, and we congratulate those in authority at Bath on having taken a step in the right direction. We hope to see the example speedily followed elsewhere, and trust that their initiative may prove the herald of a spirit of reform which will render impossible the accusation so commonly heard from both lay and medical lips, that the authorities of British spas are content with things as they are.

A MEMORIAL TO MISS FLORENCE NIGHTINGALE.

A meeting in support of the Florence Nightingale Memorial, at which the Lord Mayor presided, was held at the Mansion House on March 31st. It was attended by a large and enthusiastic audience. Incidentally it supplied the occasion for some interesting reminiscences concerning the state of the nursing profession some forty or fifty years ago. The proposals laid before the meeting by the Memorial Committee were two in number—namely, the erection of a statue of Miss Nightingale on a suitable site in London, and the providing of annuities (to be known as "Florence Nightingale annuities") for trained nurses who, through no fault of their own, have been unable to make adequate provision for illness or old age. In a moving appeal for support from the public, the Lord Mayor (Sir T. Vezey Strong) remarked that this memorial was intended to commemorate the work of one who was perhaps the greatest Englishwoman who ever lived. Lord Haldane, who followed the Lord Mayor, spoke very strongly regarding the changes brought about in the nursing profession through the efforts and example of Miss Nightingale. There were circumstances, he said, which rendered it peculiarly incumbent on the Minister responsible for the War Department of this country to be present on such an occasion, but it was difficult for him to express fully all that the army owed to the illustrious woman whose name the meeting desired to commemorate, for it was due to her that England to-day possessed one of the finest army medical services in the world. It would be a great mistake, however, to

suppose that when Miss Nightingale took up her life-work she was merely inspired by the impulse of genius. For years previously she had laboured to equip herself for her task, and it was by sheer hard work in the hospitals of France and Germany that she had succeeded in fitting herself for the pursuit of her vocation far more thoroughly than most people are prepared for the work they are called upon to undertake. Even genius could not make up for the lack of knowledge of detail; and if genius be an infinite capacity for taking pains, then Miss Nightingale was indeed a genius. She found in the Crimea a state of things which at the present day would seem inconceivable; she spent her health and her energies in doing to the best of her ability the work which her country looked to her to do. The result was an achievement which had lasted beyond her time. Never again should we be face to face with the situation which confronted Florence Nightingale in the Crimea. But her work did not end with the close of the war. She came home not to rest, but to put the lesson she had to teach in such a form that there should be no excuse for the authorities to neglect it; and the rest of her long life, in spite of impaired strength and shattered health, was spent in the work she had so closely at heart—the raising up and perfecting of the noble profession of nursing. It was not only the army, but the entire medical profession, that had learnt from Miss Nightingale how science could be applied most effectively to the problems with which it was confronted, and Englishmen ought to be proud to have had one of the foremost women of this or any age amongst them, and to have their country associated with the glory attached to her name. Lord Haldane's address, which was received with hearty applause, was followed by interesting speeches from the Hon. Sydney Holland and Mr. Butlin, President of the Royal College of Surgeons of England. The Earl of Pembroke, who mentioned that the movement had the sympathy and support of the King and Queen, moved a resolution expressing approval of the scheme advanced by the Memorial Committee. This resolution, which was seconded by Mr. J. G. Wainwright, the treasurer of St. Thomas's Hospital, was carried unanimously. Since the meeting it has been announced that Mr. G. Q. Roberts, of St. Thomas's Hospital, has accepted the honorary secretaryship of the Memorial Fund.

THE EXTENDED ABDOMINAL OPERATION FOR CANCER OF THE UTERINE CERVIX.

THE publication by Wertheim of a careful analytical report[1] of his first 500 cases of this operation is an event of importance for the whole profession. The specialist is eager to compare his technique with that of an operator of such wide experience, and all wish to know what prospect of relief can be offered to the victim of so malignant a disease. The cases are tabulated in order of their occurrence in a list extending over 126 pages. The operation was performed on the 250th patient on May 15th, 1905, and on the 500th on October 29th, 1909; inasmuch as not a single case has been lost sight of, the whole forms unexceptionable material for statistical treatment. The operation mortality was 93, and is thus distributed in successive hundreds—30, 22, 17, 9, 15; in each case the cause of death is given by the pathologist. The first 250 cases are now all over five years old, and suitable for the calculation of the permanent gain. Recurrence was found in the successive years after the operation in 41, 24, 6, 4, 3 cases, or 78 in all. Three died of intercurrent illness, and were found free from cancer. The total number of cases of cancer presenting themselves in the period was 607; if we deduct 28 who refused operation and 3 who died from intercurrent illness, we have of 576 original cases of cancer 106 free from cancer for over five years, and so a permanent cure rate of 18·4 per cent. For certain purposes the whole material from which the 500 cases were drawn can be brought under review. Thus it is interesting to note that in 79 cases the proposed operation resolved itself into a mere exploratory coeliotomy; and that in 21, on account of adiposity or some other contraindication to abdominal operation, vaginal hysterectomy was resorted to. While the detailed discussion of the technical questions raised must be sought in the monograph itself, which no specialist can afford to neglect, two are of sufficient general interest to be mentioned here. The first concerns the relations of the ureters to the carcinoma. The exposure of the ureter in its whole extent is of course the cardinal point in the operation, but the contention has been raised from the pathological side that the ureter should frequently if not always be resected. Wertheim resected the ureter deliberately in six cases only, and even of these it was found on microscopic examination that four were not actually invaded. In one the connective tissue was not quite free, and in one the mucous membrane was carcinomatous in half its circumference. In a more recent case a nodule was found in the wall of the ureter similar to that figured by Leitch in the *Journal of Obstetrics and Gynaecology of the British Empire* (April, 1910). In 11 cases there was unintentional injury to the ureter, in 32 ureteral fistula developed, in 5 being bilateral. In some of these cases the exposure of the ureter had been easy. The other question relates to the lymph glands. In a quarter of the cases, 62 in each 250, they were obviously carcinomatous, and of 41 of these from the first series, suitable for the estimate of permanent results, only 5 were cancer-free at the end of five years, and in these 5 only isolated glands had been found. As compared with 142 cases without obviously infected glands, of whom 100 were cancer-free after the five years, this gives a frequency of recurrence more than three times greater. The recurrence was usually at the site of the removed glands and indicates the difficulty of completely extirpating them. In only one case did the recurrence seem due to glands higher up than the originally infected group. The general technique of the operation is illustrated in six plates and several points relating to the ureters and lymph glands are shown by figures in the text.

[1] *Die erweiterte abdominale Operation bei Carcinoma Colli Uteri auf Grund von 500 Fälle.* Von Prof. Dr. E. Wertheim in Wein. Urban und Schwarzenberg. 1911. (Pp. 223, with six plates.)

A FESTIVAL OF SLUM CHILDREN.

THIS is an age of pageants, and nearly every year sees a succession of gorgeous historical displays; but it would be hard to picture one more charming than the Masque of the Children of the Empire, which was acted by 300 children belonging to the Bermondsey Guild of Play at Bermondsey Town Hall on the afternoon and evening of Saturday, April 1st. The hall was packed from floor to ceiling at both performances, and for nearly two hours the spectators enjoyed an opportunity of witnessing a sight that must have delighted every lover of children, and that must have won the praise of every judge of spectacular effect. Looking at the happy, healthy faces of the childish performers, it was difficult to believe that they had been taken from the very heart of the slums, whose dreary streets would be their only playground if it were not for the devotion of a little band of child-lovers who have charged themselves with the congenial task of bringing bright-

ness into the joyless lives of the children of the poor. The masque opened with a "Dance of the April Fools," performed with delightful vigour by a crowd of small boys in motley; this was followed by an imposing procession of the most famous characters in English history from the time of Alfred the Great down to the present day, including such widely divergent celebrities as William the Conqueror, Blondel, an extremely youthful Wycliffe staggering under the weight of an enormous Bible, George Washington with his famous cherry tree and the air of conscious rectitude proper to one who never told a lie, and a top-hatted Darwin affectionately hugging a large ape. The procession passed slowly round the hall to do homage to a very stately little Britannia, who majestically bade all welcome to the Masque, and some beautifully executed national dances followed, in which the exquisite lightness and grace of the little dancers compared very favourably indeed with that of girls at a fashionable boarding school. The dancing was accompanied by some excellent singing, and the effective grouping and pretty old-world costumes combined to make up a picture which will not easily be forgotten. But perhaps the most pleasing feature of the whole entertainment was the obvious and whole-hearted enjoyment of the children, who flung themselves into their parts with a verve and abandon which is too often lacking in amateur actors of maturer years. The performance was unspoilt by a single hitch, and went with a swing from start to finish; and what is even more remarkable, considering the tender years of the small actors, many of whom looked the merest babies, there were no outward and visible signs of stage management, and the children appeared to act as they would play, naturally and without prompting. There can be surely no more striking proof of the excellence of their discipline and training, and, it may be added, of the infinite patience of those who have taught them. To teachers and children, and indeed to all who have had a share in the arrangement of the festival, the greatest praise is due; and no praise can be too high for those who, by means of song and dance, are gathering round them the neglected and sickly children of our poorest classes in the endeavour to convert them into healthy and useful English men and women. The Masque was produced under the direction of the founder and honorary secretary of the guild, Mrs. C. W. Kimmins. The costumes were designed by Miss Alice Rennie; the dances were arranged by Mrs. Woolnoth; and the music was adapted and arranged by Mr. Richard Chanter. It may be mentioned that there are two guilds—that of the Brave Poor Things for cripples, and the Guild of Play for slum children. Mr. G. T. Kimmins stated that the freehold of the Craft Schools for Crippled Children at Chalvey, in Sussex, had now been bought, but funds were wanted for the further development of the work. The President is the Bishop of London, and the head quarters is the Bermondsey University Settlement.

SINGLE KIDNEY AND NEPHRECTOMY.

THE removal of a single kidney where the surgeon has not taken into account the fact that it has no fellow is so grave an error in operative surgery that when it occurs it ought to be recorded, and all honour is due to those who have bravely recorded their errors. Dr. T. S. Cullen[1] recently read before an American medical society an account of an operation on a girl of 17, the subject of arrested development of the genito-urinary tract. The uterus was absent, the vagina reduced to a shallow depression, and the right ovary and apparently the left were in the inguinal canal. A body in the pelvis, which had been taken for a haematometra, proved to be the right kidney, about half as large again as a normal kidney. The left kidney was absent. These anomalies were discovered in the course of an abdominal section, and the patient recovered; nothing, however, was removed or fixed by suture in a relatively natural position. Haste would obviously have wrought fatal disaster. Dr. Cullen referred to Palk's case, reported in 1882, where a tumour in the pelvis was removed and proved to be a right pelvic kidney. The patient lived for thirteen days, and at the necropsy it was found that the opposite kidney was absent. In discussing Dr. Cullen's case, Dr. Seth Gordon observed that, several years before surgeons had at their disposal those appliances by which the existence of a second kidney can be made sure, he operated on a patient for painful displaced kidney. Death occurred eleven days after the removal of the organ, and then it was found that the opposite kidney was wanting. The subject was a man. A second accident of this kind had a remarkable sequel. Dr. Gordon performed nephrectomy for the removal of a sarcomatous kidney. The patient, a woman, lived twenty-seven days and twelve hours without any sign of uraemia even in the breath. Her brain was clear to the last, and she died from exhaustion. There was no indication of any excretion of urine. Lastly the surgeon must remember that it is not only the horse shoe kidney that is single. In none of the above cases was the single kidney of that type, whilst in two it was pelvic in position. The pelvic kidney may easily be mistaken for a tumour of the ovary or uterus. Should the operator cut down on a pelvic "tumour" of this kind through a vaginal incision he would find himself in an awkward position for more than one obvious reason.

[1] *Trans. Amer. Gyn. Soc.*, vol. xxxv. 1910. p. 420.

THE Senatus Academicus of the University of Edinburgh intends to confer the honorary degree of LL.D. upon Dr. Thomas S. Clouston of Edinburgh, Sir William R. Gowers, F.R.S., and Dr. James Mackenzie of London, and on Professor Ernest Rutherford, F.R.S., of Manchester.

AN official announcement has appeared in the Danish press to the effect that the King of Denmark has withdrawn his patronage from the "Animal Protection and Antivivisection Congress" to be held this year in Copenhagen. One of his Ministers has taken similar action; and the Speakers of the Danish Houses of Parliament have withdrawn their assent to the use of the Rooms of the Representatives by the Congress.

THE death of Dr. McManus, of whose career we publish some account elsewhere in this issue, creates a vacancy among the Direct Representatives of England and Wales on the General Medical Council. He was elected in 1907, and his term of office would have expired at the end of this year. Apparently it will be necessary to hold an election at an early date, in spite of the fact that another election must take place at the end of this year owing to the expiration of the terms of office of Dr. Langley Browne and Dr. Latimer. The Medical Act, 1886, provides that the returning officer shall, "as soon as conveniently may be after the occurrence of any vacancy arising from the death or resignation," issue his precept to the Branch Council, in this case the Branch Council of England and Wales, enjoining it to cause a representative to be elected within twenty-one days after the receipt of the precept. We understand that an official announcement will shortly be made.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

The Shops Bill came on for second reading on Friday last and occupied the whole sitting. The debate was full of interest, and in the course of it some excellent speeches were made. The Under Secretary for the Home Office, who moved the second reading, showed how the Act of 1904, which endeavoured to solve the problem by closing shops at certain times, had failed. The present bill sought to effect its object by limiting the hours of labour for shop assistants to sixty hours a week exclusive of meal times. He contended that the long hours (sometimes as much as ninety hours a week) now worked were prejudicial to health. The voluntary closing provision was also enlarged in the second part of the bill, while steps were taken in the third part to check any increase in Sunday trading. Mr. Bottomley and Sir F. Banbury opposed the second reading. Mr. Churchill defended his bill very earnestly, and it was finally read a second time without a division. Mr. Bottomley then moved that it be referred to a Select Committee, but was beaten on division by 262 to 21, and the bill was referred to the Standing Committee.

Vivisection.—A bill to provide for the abolition of vivisection was presented and read a first time on Wednesday in last week. It is backed by Mr. Lansbury, Sir John Rolleston, Mr. Chancellor, Mr. Wm. Thorne, Mr. John Wilson, Mr. Tyson Wilson, Mr. John Taylor, Mr. James Thomas, Colonel Lockwood, Mr. Keir Hardie, Mr. Snowden, and Mr. Albert Smith.

The Prevention of Destitution Bill, which excited so much interest last session and led to a noteworthy debate in its second reading on Poor Law Reform, was introduced again last week by Sir Robert Price. The bill is supported by Mr. Robert Harcourt, Mr. George Greenwood, Sir Alfred Mond, Mr. George Roberts, Mr. Barnes, Mr. Hills, and Sir George White. The second reading was put down for April 27th.

Invalidity Insurance.—Mr. Morrell asked the Secretary to the Treasury whether he could say when the proposed bill to provide for insurance against sickness and invalidity would be introduced; and whether the scheme had yet been submitted to representatives of the medical profession. Mr. Hobhouse answered that he could not yet say when the proposed bill would be introduced. The scheme was not yet in a sufficiently advanced stage to be submitted to representatives of the medical profession.

Trade Unions (Unemployment and Sick Pay).—Mr. John Ward asked the President of the Board of Trade whether he was aware that the reports of the Registrar-General showed that 100 trade unions had paid out to their members during ten years, for unemployment, £4,018,176; for sickness and accident, £3,424,376; for superannuation, £2,363,254; for death, £954,007; and whether he had any means of deciding the amount of similar benefits paid by the remaining 1,073 trade unions not dealt with in the report. Mr. Buxton said that the figures referred to were based on a report issued by the Board of Trade on Trade Unions in 1909. They related to 100 principal trade unions, and represented the great bulk of the expenditure of all trade unions on these benefits. He would, however, consider whether similar information could be furnished as regards the other trade unions.

Vaccination.—Mr. Snowden asked the President of the Local Government Board whether sanitary authorities had power to supply vaccine lymph or to pay for vaccinations; and, if so, under what Act and section. Mr. Burns replied that in some few cases sanitary authorities had been empowered to provide facilities for vaccination by virtue of orders issued by the Local Government Board in pursuance of Section 130 and 134 of the Public Health Act, 1875. There was no provision in the general law otherwise enabling them so to act.

Vaccination (Ireland).—Sir Thomas Esmonde asked the Chief Secretary to the Lord Lieutenant of Ireland what provision was made in Ireland to provide a pure supply of lymph for the purposes of the Vaccination (Ireland) Acts. Mr. Birrell answered that glycerinated calf lymph was procured by the Local Government Board under contract from the National Calf Vaccine Institute, Sandymount, Dublin, for gratuitous distribution to the workhouse and dispensary medical officers in Ireland. The lymph was distributed from the Board's Vaccine Department, and, before its issue for use in public vaccinations, it was most carefully tested as to its efficiency at the Board's Vaccine Department in Dublin, and only the purest lymph was issued by that Department. Previous to its being used in the Vaccine Department it was subjected to bacteriological examination by the bacteriologist to the Board, Professor McWeeney, who superintended the methods employed in its preparation. The lymph was very favourably reported upon by the medical officers who used it. In answer to a further question, Mr. Birrell said he was aware of the objection to compulsion in North Wexford, but the Government did not propose to introduce legislation to assimilate the law in Ireland to that in England.

Leadless-Glazed Ware.—Mr. Steel-Maitland called attention to the report of the Committee which urged the use of leadless-glazed ware in Government departments, and asked what action the Colonial Office had taken. Mr. Harcourt said that the Colonial Office did not purchase for its own use any of the goods mentioned, though a small amount of crockery was obtained a short time ago for a refreshment committee, most of which was, he was informed, leadless-glazed ware. In answer to another question Mr. Dudley Ward, replying for the Office of Works, said that in October, 1908, the First Commissioner ordered that in future leadless glaze only should be used wherever possible, and should be so specified in all contracts. The First Commissioner hoped that this attitude, which would be firmly maintained in the future, had stimulated the use of leadless glaze.

Police Medical Officer (Somers Town Appointment).—Mr. Martin asked whether Dr. Starkie was appointed medical officer to the police in Somers Town, East St. Pancras, as part of an arrangement by which the previous incumbent, Dr. Thompson, sold his practice to Dr. Starkie; and, if so, why were medical men resident in the district asked to send in applications for the position. Mr. Churchill said that Dr. Starkie was not appointed divisional surgeon at Somers Town as part as any such arrangement. The invariable rule in making these appointments was to select from among the applicants the candidate who was considered to have the best qualifications for the post, and this rule was observed in the present case. A non-resident medical man was never appointed, but length of residence was obviously a minor factor. Dr. Starkie had, he understood, been residing near Somers Town Police Station since May last.

Medical Service (Scottish Collieries).—Dr. Chapple asked the Lord Advocate whether he was aware of the practice of many owners of collieries and brickworks in Scotland of deducting sums from their workmen's wages for medical service, notwithstanding the fact that such workmen belonged to friendly societies and had their own medical men; and, if so, whether he would introduce legislation on the subject. Mr. Churchill replied that he was aware that the practice mentioned existed in some parts of Scotland as well as in other parts of the United Kingdom, but he did not know to what extent it affected workmen who

were members of friendly societies. Such arrangements were authorized by Section 23 of the Truck Act of 1831, but it was expressly stipulated that there should be an agreement signed by the workman. Evidence on the subject was taken by the Truck Committee, and the recommendations of the Committee in this matter would be considered when the amendment of the Truck Acts was taken in hand.

Anthrax.—Mr. C. Bathurst inquired on Monday last as to the increase of anthrax in Great Britain during the last two years and the proportion of reported cases wrongly diagnosed. Sir Edward Strachey answered that the increase in the number of recorded cases of anthrax was probably due, speaking generally, to the fact that the existence of this disease was more frequently reported. It was not possible to give a full reply to the last part of the question except in considerable detail. Perhaps the hon. member would allow him to refer him to the Board's Annual Reports for the past two or three years.

Rats (Extermination).—Mr. Noel Buxton directed the attention of the Board of Agriculture to the effect of the trapping of stoats and weasels on the prevalence of rats, and asked that a leaflet dealing with this point might be issued, Sir E. Strachey replied that the Board issued a leaflet in December last calling attention to the enormous damage done by rats, and urging upon farmers the necessity for their destruction. Nearly 50,000 copies of the leaflet had been circulated. It would shortly come forward for revision, when the Board would be glad to consider the suggestion made.

Flour Bleaching and Improving.—The reports promised some time since by Mr. John Burns on behalf of the Local Government Board were laid on the Table of the House on Monday last. They are three in number—namely: I. On the bleaching of flour and the addition of so called "improvers" to flour, by Dr. J. M. Hamill. II. On the chemical changes produced in flour by bleaching, by Dr. G. W. Monier-Williams. The third report is on the presence of calcium sulphate in baking powder and self-raising flour, and is by Dr. J. M. Hamill.

International Hygiene Exhibition, Dresden.—Last week Mr. John Burns informed Mr. Mallaby-Deeley that the Local Government Board did not propose to send any exhibits to this exhibition.

Medical Service (India).—The Under Secretary for India has informed Mr. Kelly that students for the military assistant surgeon's grade were trained for four years at the expense of Government. The qualifications which they obtained were not as a rule registrable in the United Kingdom. The number of such students and the cost of their training could not be stated without reference to India. No change of the system of recruiting the Indian Subordinate Military Medical Service was under contemplation.

Cholera and Typhoid in India.—In answer to Mr. Barton, who asked that the supply of filtered water should be made compulsory in Indian factories, Mr. Montagu said that the maintenance of an adequate supply of good drinking water in Indian factories was already secured by rules made under the Factories Act by the local governments. The Labour Commission found that little, if any, exception could be taken to the arrangements for supplying water; and that in many factories special attention had been given to the question.

The Course of Business.—The Easter recess will be short this year, and begin on Wednesday next and last till Tuesday, 18th, when the Commons will resume the Committee work of the Parliament Bill. The House of Lords adjourned on April 6th to April 26th.

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

LONDON.

Medical Inspection and Treatment of School Children.

With regard to the letters from the Board of Education criticizing the present methods and organization of medical inspection and treatment in London, the Education Committee of the County Council on March 29th approved the recommendations of the Children's Care Subcommittee that officials of the Council should co-operate with those hospitals that would permit it by attending during treatment, checking attendances, making arrangements for following up, and so on; and also the second recommendation, that the salaries of additional clinical assistants should be paid in cases where hospitals agreed to treat a larger number of cases than before (British Medical Journal, March 25th, page 716). The Education Committee also approved the following definite assurance to the Board of Education:

> That the Board of Education be assured that the Council is taking and will take all practical steps which, from time to time, can be taken to improve the existing arrangements for the medical inspection and treatment of school children, and will ensure that, at an early date, substantial progress will have been made in the establishment of a complete scheme of inspection and treatment which will be brought into at least partial operation not later than October, 1911; and that the Council will communicate to the Board any important steps to that end that may be taken during the ensuing six months.

When the resolution came before the Council for confirmation, on April 4th, the Finance Committee reported in tones of strong disapproval. The Committee said it had no information as to the exact scope of a scheme which would be acceptable to the Board, or as to the meaning attached to the term "a complete scheme." Neither had information been submitted by the Education Committee as to the nature of the proposals intended to give effect to the assurance proposed to be given to the Board of Education, or as to the probable cost. It appeared that the Council, by agreeing to the recommendation of the Education Committee, would part with all control of its future action in regard to medical treatment and commit itself to early expenditure of unknown amount and future outlay not improbably very considerable. The Finance Committee directed special attention to the emphasis laid by the Board of Education on a co-ordinated scheme of medical inspection and treatment, and remarked that this gave rise to grave apprehension as to the intentions of the Board, and the policy into which the Council might be driven in regard to medical treatment. In the opinion of the Finance Committee it was undesirable on financial grounds that the optional service of medical treatment should be regarded as in the same category as the obligatory service of medical inspection, although, no doubt, on administrative grounds they should be co-ordinated. Further, no indication was given either by the Board of Education or the Education Committee as to the scope of medical treatment contemplated. The Council had confined its operations hitherto to treatment of diseases of the ear, nose, throat, and teeth, and of ringworm, but there was nothing to show that if the proposed assurances, which were in very general terms, were given to the Board the scope of such treatment would not have to be considerably enlarged. The Council should not take any action which might commit it to such an extension without full information as to the ultimate expenditure involved.

The Finance Committee was strongly of opinion, therefore, that in the financial interests of the Council the recommendation of the Education Committee should not be agreed to its present form. In the first place, it should be made clear that any assurances given to the Board must be subject to financial considerations. Medical treatment was emphatically a national service, and the Council should not embark

upon an expansion—to an altogether indefinite extent—of its expenditure in this direction in the absence of substantial grants in aid from national funds. Nor should the Council commit itself in any way to the establishment of a complete scheme of treatment, such as the Board of Education apparently contemplated, without having before it information, at least, as to the general lines of such scheme and an approximate estimate of the cost. If the resolution of the Education Committee were confined to giving assurances that, subject to financial considerations, the Council was taking and would take all practical steps to improve the existing arrangements for medical inspection and treatment, and to communicate to the Board any important steps taken in that direction during the next six months, the Finance Committee would be prepared to agree thereto.

The report was not reached until a very late hour, when, by general consent, discussion was adjourned.

THE SITE OF THE PROPOSED MENTAL HOSPITAL.

After a protest by a local member, Mr. F. Hall, M.P., who alleged detriment to the neighbourhood, "in addition to that caused already by the erection of King's College Hospital," the proposal to purchase a site at Denmark Hill for a mental hospital[1] was approved.

THE EPIDEMIC OF MEASLES.

The Board of Education and the Local Government Board have approached the Education Committee of the London County Council as to the adoption of special measures to check the "serious epidemic of measles now prevalent in the metropolis." Measles being at present a non-notifiable disease, information regarding it comes first to the school attendance officers, and the central authorities, in a letter received by the Education Committee on April 5th, asked whether arrangements could be made for the communication *forthwith* of this information to the medical officer of health in each metropolitan borough. At present some delay occurred, and this should be avoided in time of epidemic. The Public Health Committee advised that, as no loss of grant would be incurred, all infants' departments should be closed for one week previous to Easter, and that to expedite action in dealing with epidemics the school attendance officer should notify the school teachers at once, instead of waiting until, in the ordinary course, he submitted his usual weekly returns. The Education Committee stated, in reply, that teachers were already notified by the school attendance officers, who also forwarded information to the local medical officers of health. As to closing the schools, the Education Committee said that experience had shown that the older method of closing schools when measles were prevalent was ineffective in preventing dissemination. Closing the schools made it difficult to keep the disease under observation, except so far as it might reveal itself in the death statistics. Consequently, for some time the more accurate method had been in vogue of excluding individual children, and of close observation of the children themselves. As the condition of the children having contracted it was highly infectious before the rash appeared, any exclusion should take place five days before this symptom was in evidence. This early exclusion of the child was generally secured under the operations of the present rules. The vigilant application of these rules would be more effectual than action such as the Public Health Committee advised. The present epidemic was rapidly declining. The Committee decided to take no action on the suggestion of the Public Health Committee.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC.

The annual general meeting of the Medical Graduates' College and Polyclinic was held at 22, Chenies Street, London, on March 31st. Sir James Crichton-Browne, who was in the chair, said in the course of some introductory remarks that the claims of the Polyclinic and its merits were well known; notwithstanding certain adverse circumstances, it had done and was doing its work. He wished that more frequent opportunities could be taken of bringing the Polyclinic to the notice of the public and of enabling them to realize its aims and its means. He would not say that it blushed unseen, for it certainly had no cause to blush, but it was to a large extent hidden from view, and outside the professional circle he found very little was known about it. If not the man in the street but the man in the West End club, the educated and intelligent man, were asked what he knew about the Polyclinic he would probably respond by asking whether it was a new game, or a new kind of mineral water, or some new kind of athletic device. It was highly desirable that the public should know something about the Polyclinic, because it was in their interests that it existed, and it was for their ultimate benefit that it was struggling along. It was imparting the knowledge, manufacturing the skill which would afterwards be available by many sick beds, and it was therefore discharging a public trust and a public duty. It was thereby contributing to the saving of life and of suffering, and it was but right that the general public who benefited in that way should do something for it and assist in supporting it in its work. There was a tendency to-day—it was a tardy tendency, but it was a tendency which was growing—towards the endowment of research, and a general and universal interest was felt in all matters educational. It seemed to him that the Polyclinic was both an educational institute and an institute for research, and those who were endowed with wealth could not do better than contribute of their surplus funds to secure its position and extend its usefulness. There were rich and far-seeing men about who, if they really knew the work that the Polyclinic was doing would, he thought, be glad to contribute and to see that it was no longer embarrassed or curtailed in its work in any way by want of funds. It was leading the way in a movement which must inevitably extend and expand, and everything that was possible should be done to expedite that movement. In no profession in which science was concerned, least of all in medicine, could any resting stage be now reached. In conclusion, Sir James said that he was fully convinced that among the many and great services to medical and surgical science and to his profession rendered by his old and esteemed friend, Sir Jonathan Hutchinson, the part he had taken in the initiation of the Polyclinic would be remembered as not the least.

Dr. C. O. Hawthorne, in moving the adoption of the annual report, which was duly seconded and carried, said that the year 1910 was the most successful year in the annals of the Polyclinic. The evidences of that success were, first, that the membership or the list of subscribers had increased by the addition of 150 names. Necessarily in such an institution there was a constant loss of members, but there was a nett gain. If the financial basis of the institution was to be secured it was, however, necessary that it should have a membership of not less than 1,000 names. Secondly, the evidences of the success of the institution were to be found at 4 or 5 o'clock every afternoon, save Saturday and Sunday, in the week. Where was there an institution in this country—where was there an institution in the world perhaps—at which forty, fifty, or seventy medical men, medical practitioners, could be found every afternoon engaged in clinical observation and study? That was a sight which could be seen regularly and continuously at the Polyclinic, and the reason was that the Polyclinic was able, fortunately, to command the generous and liberal services of most of the best known physicians and surgeons and clinical teachers of the great motropolis.

Dr. Dundas Grant moved the adoption of the balance sheet, which was duly seconded and carried; and, Dr. Drummond Morier having spoken, Dr. F. J. McCann, in proposing a vote of thanks to the chair, said that he was one of those who had always believed that the metropolis should have the finest post-graduate school in the world. He had been more than ever impressed with that belief after a recent visit to Vienna, where no fewer than 150 American medical men were studying

[1] BRITISH MEDICAL JOURNAL, March 25th, page 716.

and paying £1,000 a month in fees. On going into the subject with several Americans on a visit to their association—for they were excellently equipped there—they told him that they were quite prepared to move the association to London if London could give them what they wanted. The Polyclinic was only the nucleus of a great post-graduate institution. It must be run quite independently of any existing hospital, and it must be one in which the policy of the open door was maintained. Men did not come from Canada or Australia or any other colony to see one particular man; they came to see several men, men who might be attached to several hospitals, and it was only by getting those men to come into one central institution that they would be able to give what the visitors desired to obtain.

The Chairman having acknowledged the vote, the proceedings terminated.

Kensington Tuberculosis Exhibition.

A Tuberculosis Exhibition, arranged by the North Kensington Dispensary for the Prevention of Consumption, was declared open at the Campden Technical Institute by Princess Louise on April 4th. Among those present were Surgeon-General Sir Charles Cuffe and Dr. Theodore Acland. The latter, in seconding a vote of thanks to the Princess, said that few people realized what the ravages of consumption really were. In the Crimean war the number of men who died in battle or of wounds afterwards was only one-twelfth of the number of persons who died from tuberculosis during the years that that war lasted. A corresponding statement might be made in regard to the Boer war. In the years 1899 to 1902 there died of tuberculosis in London alone more persons than were killed by wounds and disease in South Africa during the war, and double the number of those who were killed by the enemy in battle. The exhibition is on the same lines as that which was opened in Whitechapel in 1909 and has since been on view in many parts of the country. The doors will be open from noon until 9.30 p.m. every weekday up to April 17th inclusive, and a number of ladies and gentlemen have undertaken to attend each day to explain to visitors the meaning of the exhibits. In addition a lecture illustrated by lantern slides will be delivered every day at 8 p.m.

MANCHESTER AND DISTRICT.

Treatment of Consumption in Manchester.

At the annual meeting of the Manchester Hospital for Consumption held last week some important points as to treatment and provision for consumptives were brought out. The report referred to the extension of the Crossley Sanatorium, the cost of which, amounting to £1,470, had been defrayed by Mr. Alfred Crewdson. The financial statement showed a debit balance at the bank of over £3,000, the income falling short of the expenditure by £1,100, while the additions to the Delamere Sanatorium would cost a further £800 a year. The medical report showed that the total number of new patients at the out-patient department had been 10,065, which was nearly 400 less than in the previous year, the decrease being attributed in part to the milder weather during the later months of the year. Dr. Renshaw read the report of the in-patient departments at Bowdon and Delamere, showing a slight increase in the admissions at both places, Bowdon having received 123 patients and Delamere 296 patients. The demand for male patients' beds continued to exceed that for females. The public health departments of Manchester and Salford had recommended a number of cases, and had greatly facilitated their selection by furnishing information as to home environment and other circumstances which made cases specially suitable for sanatorium treatment. Appreciation was expressed of the efforts of the two corporations to arrest the evils of spitting in public vehicles and other places, especially in the closed upper decks of tramcars where smoking is allowed. A further trial had been made of treatment by Koch's new tuberculin T.R, but the results up to the present were inconclusive. It was noticed that an appreciable deterioration in health often followed on the return of the patients to their ordinary occupations; in spite of the fact that they had been built up and fortified by the sanatorium treatment, they were liable to suffer a return of distressing symptoms in a short time.

The Lord Mayor of Manchester said there had been a considerable reduction of the mortality from consumption, the figures having fallen from 2·2 per 1,000 in 1901 to 1.64 last year, and if the hospital did nothing more than educational work it was doing a splendid service to the city, as it taught thousands of patients how to live. He suggested that it would be useful if centres could be established in various parts of Manchester where workers might be seen by medical officers in the evenings, and treatment of the first stage of the disease given. Not only could the actual sufferers be seen, but every member of the family could visit these centres from time to time to see that they too did not become inflicted. He thought that this would help very much to wipe out consumption. He agreed with Dr. Niven that it would be a good thing if the bread winner suffering from phthisis could be more assisted in the early stages, as it frequently happened that very little could be done owing to such persons keeping at work until it was practically too late for the hospital to be of much service.

Sir Wm. Crossley said that owing to the pressure for beds they were bound to give a preference to Manchester and Salford, which were the chief subscribers, and they had now made a rule that if towns outside an area of seven miles from Manchester wanted to send patients, they might do so by subscribing about £20 a year, as several already did. The Samaritan Fund, which was to aid poor patients after leaving the hospital, needed more public support. It often happened that a patient was dismissed much improved in the view of the doctors, but he had lost his work, and on returning to his old surroundings his condition rapidly deteriorated, and he died. A farm colony to harden the patients before their dismissal might be a good thing, but at any rate the Samaritan Fund deserved greater assistance, as last year it received only £43, and spent £107. He had noticed that as unemployment had decreased during the year there had been fewer patients; he thought this arose from the fact that people being in work were not willing to leave it even to obtain a cure, and there was fear that they would see the results later in an increase in the number of deaths.

Dr. Niven, in proposing a vote of thanks to the officers and the medical officers, said the hospital did great work not only in treatment, but in instruction. The great difficulty was to get cases early enough, as they would not leave their work and closed their eyes to the encroachments of the disease. That difficulty could only be met by assisting families in which cases of consumption occurred. There was a scheme on foot for a great national system of sickness insurance on the German lines, and undoubtedly a vast amount of good had been done in Germany in connexion with phthisis. But he was not sure that a special fund for the purpose of relieving families of consumptives would not do more good than a general system of national insurance in connexion with that particular disease. He did not suggest who should bear the burden of such a fund, but the public as a whole should, perhaps, do so. As to dispensaries, he thought that something might be done by the establishment by the Consumption Hospital of local centres attended by medical men.

Mr. Alderman Fildes, Chairman of the Sanitary Committee, said there were about 4,000 persons suffering from consumption in Manchester, and, apart from the provision made by the guardians, there were only 150 beds available in the hospitals. He thought that consumption should be made compulsorily notifiable, and that there should be no half-measures. A parent advanced in consumption was often at home with children about, and such patients should be taken away, even if in a dying condition. As far as the

medical department was concerned, the work should be done by specialists. Dr. Niven did not mind where the money for this work came from, but some of them felt that it should be a charge on the rates.

From information mostly given in the reports of the medical officer of health it is calculated that the loss of wages due to cessation of work of the notified cases of phthisis in 1909 was not less than £48,000 a year. There are about 1,000 deaths a year, and it is estimated that there must be about 3,000 infective cases at any one time in Manchester. The beds at present available for treatment are 585, but this includes the union hospitals, where the cases are liable to overflow on to the able-bodied side, so that the prevention of infection is by no means what it should be. It is calculated that at least 200 more beds are required, but, to deal effectively with the great number of cases in an advanced stage, it would be necessary to obtain powers of compulsory detention which would involve a provision far greater than any now even contemplated. It is strongly held that poverty is a most potent factor in the spread of consumption, and above everything else it is necessary that consumptives and their families should not be allowed to sink into destitution, as in such circumstances not only is the progress of the disease more rapid, but the overcrowding that ensues has a most deleterious effect. The suggestion that national insurance on the German lines is not the best means of making provision for the needs of consumptives seems to be founded on some misapprehension, for, though it is correct to state that the sickness insurance expires after a certain number of weeks, there still remains the invalidity insurance which makes an indefinite provision. As to the death-rate from phthisis in Manchester, there has certainly been a decrease as compared with 1901, but it is to be noted that the rate was higher in 1909 than in 1905, 1907, and 1908. The male death-rate is persistently higher than the female rate, being for the years 1901–5—for males, 2.439, and for females, 1.464. In the central parts of the city the death-rate was as high as 5.396 for males and 2.624 for females. This largely depends on poverty, which leads to overcrowding and bad sanitary conditions in certain parts of the city. An estimate founded on the histories obtained by inquiry officers as to the likely sources of infection is to the effect that of 1,073 cases notified in 1909, not including those from workhouses, 277 were more or less probably infected from relatives, 60 from companions, 219 from workfellows or workplaces, 100 from houses including public-houses, and the rest from various sources often not ascertainable. Somewhat similar figures are given for workhouse cases, except that an unusual number seem to have been infected from houses, including public-houses, and lodging-houses seem to have been especially to blame. It also appears that the pauperism of Poor Law consumptives is determined to a very considerable extent by intemperance, as out of 640 cases over 20 years of age notified from Poor Law sources no less than 388 were reported as intemperate. It is suggested that the union hospitals should have the power and duty imposed on them of retaining Poor Law cases unless it can be shown that their discharge would not be liable to cause infection to others, and that phthisical poor persons should not be allowed to wander about from place to place or to go from one lodging-house to another. The opinion is expressed that the sources of failure in the present methods of administration would not be touched by the establishment of dispensaries for consumptives in various centres of the district.

WEST YORKSHIRE.

THE BRADFORD DIVISION.

AN interesting meeting of the Division took place on March 30th to hear an address by Mr. Smith Whitaker, Medical Secretary, on the Organization of Medical Attendance on the Provident or Insurance Principle. The meeting was largely attended, and the members were delighted with the lucid manner in which Mr. Smith Whitaker handled the subject. It was an exposition which will largely help the medical men of the West Riding in coming to a decision on this momentous subject. Before the meeting Dr. Manknell, chairman, entertained the officers of the Division to dinner to meet Mr. Whitaker.

THE SOCIETY OF MEDICAL OFFICERS OF HEALTH.

The Yorkshire branch of the Incorporated Society of Medical Officers of Health held its annual dinner at the Hotel Metropole, Leeds, on March 29th, when a large number of members and friends met under the chairmanship of Dr. S. G. Moore of Huddersfield, the President of the branch. After the usual loyal toast, submitted by the President, had been duly honoured, Sir Lauder Brunton proposed the toast of "The Public Health Service." No branch of the medical profession was deserving of more honour for excellent work done, and no branch got so much less than it deserved. The public, indeed, had little idea what was owing to the medical officers of health for their assiduous labours to keep out infection. He spoke of the ravages of plague in the Middle Ages, and said that the present experience in Manchuria proved that this fell disease had lost none of its power. Plague had in quite recent times found footing within our shores, but there had been little excitement, for the prompt action of the medical officers of health and the Local Government Board at once held it in check. So successfully was this done that no spread of infection occurred, and the disease was completely stamped out. If this kind of work were recognized in its entirety, a monument would be erected to those who had performed their duties so efficiently. Consumption, Sir Lauder Brunton went on to say, was in one respect worse than the Black Death because of its power of selecting from among the very best. With concerted action by the public health service and the whole people this disease would in a very short time be abolished. With regard to the medical inspection of school children and the treatment of defective conditions, he said that he was not prepared with any cut and dried scheme, but felt that the responsibilities of parents should not be lessened too much, and that the school medical officers should, as a rule, only exercise supervisory powers over the treatment of the children. After advocating the establishment of a central institute of public health, Sir Lauder concluded by urging that the tenure of office for the medical officer of health should be permanent. He would like to see the work which is being done by them day by day understood more fully by the public at large—work which was not limited to arresting epidemics, but which serves to increase the happiness and productive power of the individual, and indirectly the welfare and stability of the State.

Alderman B. Broadbent (Huddersfield), responding to the toast, said that he considered the public health service as important as either our military or naval services, for while the latter tended to preserve us from invasion by foreign countries, the public health staff preserved us from dangers which were no less real, and certainly closer at hand. He advised that those engaged in the regular forces of the service should keep their souls in patience, for the time was coming when they would have the opportunity of doing for the benefit of the public those things which the public now fail to see the import of.

Dr. J. Spottiswoode Cameron, of Leeds, also acknowledged the toast.

The Lord Mayor of Leeds (Mr. W. Middlebrook, M.P.) proposed the toast "This Society," and said that he understood that the society had existed for about half a century and that the branch was in a strong position numerically, which was as it should be, because for many reasons such a society should be widely supported. It was safe to prophesy that the duties which the legislature would place on the shoulders of medical officers of health would tend greatly to increase.

Dr. J. R. Kaye, the Honorary Secretary of the Branch, replied on behalf of the Society, and said that a survey of current events corroborated the statement of the

Lord Mayor as to the growing importance of health matters, not only to the individuals, but to the nation. Examples of the legislative expansion of preventive work were seen in the Children Act, the Housing Acts, Notification of Births, and in the schemes for health visitors, sickness insurance, and other projects which were fast coming to the front. Dr. Kaye concluded by thanking Sir Lauder Brunton for his kindness in coming down to encourage the society, and acknowledged the cordial support given to him as secretary by the members of the branch. The toast of the "Guests" was proposed by Dr. Webster, of Colcar, and acknowledged by Councillor Boyle (Chairman of the Leeds Sanitary Committee) and Dr. Trevelyan. Dr. Martin, of Brighouse, proposed the health of the President. During the evening songs were given by Dr. Kaye, Dr. Smith, Dr. Clark, and others.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

The annual dinner of the Bradford Medico-Chirurgical Society took place at the Midland Hotel, Bradford, on March 29th. Before dinner an address was given on "*X* Rays and Radium" by Dr. Mackenzie Davidson, of London. The address was most interesting, and illustrated by lantern slides and radiograms. Dr. Davidson was treated as the chief guest at the dinner, which, although not so largely attended as usual, was of an enjoyable character.

LEEDS.

LEEDS WORKPEOPLE AND THE KING EDWARD MEMORIAL.

A SPECIAL meeting of the committee of the Leeds Workpeople's Hospital Fund was held on the evening of April 3rd to consider the question of co-operating with the Lord Mayor in an appeal which he proposes to make to the workpeople of the city that they should take their part in subscribing to the fund being raised for the General Infirmary in memory of King Edward. This special fund has made good progress, and now amounts to £95,000. As was pointed out by Mr. Charles Lupton at the annual meeting of the Infirmary, this sum represents the subscriptions of some 400 people, and it is considered that the time has come when the appeal should be made to a very much larger circle of possible subscribers. There should really not be the smallest difficulty in securing that the sum obtained should reach the original amount aimed at—namely, £150,000. As has been stated by the Lord Mayor, the population of Leeds stood at 207,000 in the year 1870, about the time the present Infirmary was opened—and now it is estimated at over 500,000. There must be at least 150,000 people in Leeds who, without any considerable sacrifice, could afford to subscribe 6s. 8d. each, which would practically complete the fund. It is most gratifying to those who are responsible for the working of the Infirmary to find the workpeople of the city following the excellent example of their more wealthy fellow-citizens and, perhaps, what is of as great importance, setting an example which it is hoped the middle classes will not be slow to follow. The meeting was very enthusiastic, and after a general agreement had been come to as to the desirability of the workpeople of the city making a united effort, it was arranged that every workman, workwoman, boy, or girl earning 20s. or more per week should subscribe 1s. each, and that those earning less than that amount should subscribe 6d. each. It is hoped and believed that many will give more than this, and it was announced that at one of the works in the city it had been arranged by the workpeople themselves to give £150, a sum which represented an average subscription of about 2s. 2d. There are some who think that the amount obtained by this special effort will reach £10,000. The meeting was addressed by the Lord Mayor, who has shown the greatest interest in the matter, and who has carried on the work so ably initiated by Mr. Charles Lupton. In the course of his remarks he contrasted the number of in-patients in the year 1870, which was 2,584, with that of the year 1910, when the number amounted to 7,043; in the same period the out-patients had increased from 7,496 to 48,451, while the number of operations on in-patients had gone up from 496 in 1870 to 4,075 in 1910.

INCREASE IN THE HONORARY STAFF OF THE GENERAL INFIRMARY.

When some months ago it was decided that in future some restrictions should be placed on the holding of honorary appointments in other institutions by those who were on the staff of the Infirmary, the only ultimate difficulty in the equitable framing of the new rules, which, by the way, were supported by the honorary staff of the Infirmary, arose from the consideration that other institutions in the city might be injured by their operation. Most of the difficulties melted away on calm examination, with the exception of that which affected the Tuberculosis Association, and when the new regulations were discussed in this column just after their confirmation at a general meeting of the Infirmary, it was stated that the anxieties of the Tuberculosis Association had been met by a general understanding that at the ensuing annual meeting of the General Infirmary a rule would be proposed which would secure to the Tuberculosis Association the services of at least one of the junior members of the Infirmary staff. At the annual meeting of the Infirmary on March 30th it was proposed and carried that a third assistant physician should be appointed, who, in addition to his duties at the Infirmary, should have charge of 15 beds at the Leeds Tuberculosis Association Hospital at Armley. This special appointment will be a bond of union between the two institutions, and it will further secure that the junior members of the staff are not cut off from acquiring a special knowledge of tuberculous diseases of the lungs, for it is undoubtedly the case that, since the launching of the Tuberculosis Association some years ago, the number of in-patients suffering from phthisis has decreased owing to the large number which are dealt with by its agency.

In connexion with this latest increase in the numbers of the honorary staff, it may be of interest to note that in the year 1883 the staff consisted of three physicians, four surgeons, two ophthalmic and aural surgeons, and one dentist. The growth of the out-patient departments led in 1883 and 1884 to the appointment of two assistant surgeons and two assistant physicians. On the appointment of the two assistant physicians the number of the full physicians was reduced from three to two. In 1885 the gynaecological and extern maternity department was started, with, of course, a new honorary officer. In 1890 the growth of the ophthalmic and aural department called for the appointment of an assistant honorary officer in that department. The full physicians were increased to the former number of three in the year 1892. In 1905, on the appointment by the University of Leeds of a professor of pathology, it was thought wise that the occupant of the new position should be afforded opportunity for pathological investigation within the walls of the Infirmary, and the position of honorary pathologist was created, a position to which the Infirmary was empowered to appoint the Professor of Pathology. In this year also there was appointed an assistant surgeon whose duties were confined to the charge of the two semi-convalescent hospitals at Cookridge. In 1909 the radiographic department, which had been supervised by a member of the staff, was reorganized and equipped, and placed under the charge of an honorary radiographer. The latest change was the increase in the number of the assistant surgical staff from three to four. The two junior assistant surgeons have charge respectively of the casualty department and of the semi-convalescent hospitals and isolation department. When effect has been given to the decision to increase the number of the assistant physicians, the honorary staff will consist of 21 members as compared with 10 in the early part of 1883—a notable increase, but one which is an accurate indication of

the great increase in the amount of the work accomplished. It is of interest to note that within the same space of time the number of the resident staff has increased in the same ratio, for in 1883 it was 7, and now it amounts to 14.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

MORISON LECTURES ON INSANITY.

THE Morison Lectures on Insanity were delivered before the Royal College of Physicians of Edinburgh by Dr. George M. Robertson, Lecturer on Insanity in the University of Edinburgh, on March 6th, 8th, and 10th. In the first lecture, which dealt with the differentiation of melancholia and the depressive phase of manic-depressive insanity, Dr. Robertson said that until recently the term melancholia was employed in a very inclusive sense. The differentiation of the disease had been placed on a surer basis by increased accuracy of observation. Not all patients who happened to be depressed were diagnosed as melancholic, but only those in whom painful or depressed feeling was the primary and fundamental disorder of the mind. A man suffering from systematized delusions of persecution, however depressed he might be, even were he to commit suicide, would not be regarded as such. The whole course of the disease and its termination—the picture of its symptoms as a whole—formed an essential part of our conception. This extended observation had led to the discovery that mania and melancholia were closely associated. There was a melancholic stage at the beginning of mania very often and an exalted stage at the end of melancholia. Kraepelin suggested that mania and melancholia were different phases or manifestations of the same disease process, to which the name of manic-depressive insanity had been given. *Folie circulaire*, in which disease the patient was at one stage the picture of misery and at another in boisterous high spirits, gave support to this hypothesis. This form of insanity, so anomalous in former classifications as to require a class by itself, was found to be the key in the symptoms of both mania and melancholia. The lecturer described the continuous, the alternating, and the double forms of the disease, and discussed their relationship to melancholia. Melancholia, like *folie circulaire*, had a tendency to relapse—an irregular periodicity. It also tended to alternate, as some of the relapses later in life were of mania. It tended to recover, and to recover completely, there being no tendency to dementia. As with the periodic attacks of *folie circulaire*, so with the relapses of melancholia, there might not be any definite cause. The disease was an idiopathic, not an acquired, form of insanity, and resulted largely from the inheritance of an unstable nervous system. The hereditary predisposition to insanity was probably stronger in *folie circulaire*—hence its greater tendency to alternation and periodicity and the absence of exciting causes for these phases. The lecture concluded with a lantern exhibition of photographs, in which the expression of melancholia was analysed on the basis of Darwin's hypotheses. Several of the illustrations were taken from Sir Alexander Morison's classical, work *The Physiognomy of Mental Diseases*

In the second lecture symptoms of melancholia were dealt with. The symptoms of disease being the natural functions of the body acting in an unusual way, the rational way of studying melancholia, or disease of depressed emotional states, was in association with the corresponding functions as they occurred in health. All melancholics were depressed, but the shade of painful feeling varied from despondency, to acute anxiety and abject misery. This was a subjective and morbid feeling, with no real external basis. Associated with this was inactivity or paresis of other emotions. The melancholic was unable to enjoy anything, or even to take an interest in anything. The ideas were all gloomy, and there was sluggishness in their flow, and, associated with this, poverty in their number. The patient was conscious of this; it may be due to lack of interest. There was no confusion or enfeeblement, and he had a true insight into his condition. There was a tendency to continuous ideation of a monotonous character on any depressing subject. In this limited sphere there might be excitement, and, finally, delusions might develop. The contents of the delusion were of no importance; the important point was that the delusion was the explanation the patient had adopted to account for his melancholy condition. Hallucinations might occur, but they were never a prominent feature of the condition. The expressions, attitudes, and gestures were very interesting, important, and characteristic. There was defect of will power, and failure to perform those acts and duties expected of a sane person—faults of omission, and failures to do the things that ought to be done. He refused to do his work, or to go out of the house, or to dress, or even to eat. Associated with this there was a strange condition of restiveness, a meaningless and automatic resistance to everything; extreme restlessness might develop. The one serious act of commission was the attempt to commit suicide. . . At one stage or another the desire to do so was present in every case of melancholia. Among the physical symptoms, disorders of the stomach and digestion and of the alimentary tract were the most common and important. The patients always lost weight; there was sluggish metabolism and impaired vitality. Insomnia was an almost universal and most distressing symptom. The muscular system was involved in the expression and attitudes, and the voluntary movements were slow and feeble. Sensory phenomena, especially paraesthesiae, were very numerous, and were without doubt the cause of many hypochondriacal delusions The choking feeling in the throat, simulating globus, being the basis of the idea that the throat was closed, and that it was impossible to swallow, was one of the commonest of all melancholic delusions.

The third lecture is published in full in this issue.

FREE DIPHTHERIA ANTITOXIN IN EDINBURGH.

A recent letter from the Local Government Board pointed out the value and importance of using antitoxin at an early stage of diphtheria, and suggested that it should be supplied free by local authorities. At a meeting of the Public Health Committee of Edinburgh Town Council on March 28th, the medical officer of health for the city (Dr. Maxwell Williamson) suggested that the antitoxin should be supplied free of charge to the medical profession; he also suggested that he should be empowered to call upon practitioners to take swabs from the throats of people who had come in contact with cases of diphtheria, so that these swabs should be examined bacteriologically and preventive measures taken, and to pay a small fee. The committee agreed to the free distribution of antitoxin but declined to pay a fee in respect of swabs, instructing the medical officer of health that for a period of six months he should call the attention of medical practitioners in whose practices cases of diphtheria occur to the facilities which the Public Health Committee had arranged for having swabs examined at the Usher Institute free of charge. The committee also resolved to communicate with the School Board, requesting the medical officer of the board to take swabs immediately from the pupils attending each class in which a case of diphtheria occurred.

ANTIVIVISECTION IN EDINBURGH.

The annual meeting of the Scottish Branch of the National Antivivisection Society was held in Edinburgh on March 28th, when Miss Lumsden presided over a considerable audience, mainly of ladies. Dr. Charles Reinhardt, London, gave an address in which he dealt with some of the arguments put forward in favour of vivisection, and Miss Lumsden expressed the opinion that the law with regard to the practice of vivisection was at present in a most unsatisfactory state; better inspection was necessary. A motion for a wide campaign of meetings in Scotland throughout the summer, made by Mr. Ernest Bell, Chairman of the Central Committee in London, was not seconded.

Nursing Home for Edinburgh.

At a public meeting held in Edinburgh on March 29th in support of the proposal to open a nursing home for the Edinburgh, Leith, and country districts, Sir Robert Usher, the chairman, said that it might seem strange that any one should have the hardihood to suggest that another hospital should be opened in Edinburgh. The provision of hospital accommodation for the working classes was ample and generous. For the rich there were excellent homes, but the charges were proportionately high, and the middle class of moderate means very much left in the cold. He referred to shopkeepers, clerks, commercial travellers, tenant farmers, and other people who had a competence, but had nothing to spare for any very great strain on their resources. It was for this class that the new scheme was proposed. Roughly, the scheme was to start an hospital of moderate size, where beds might be had at from one to three guineas a week, including food and proper appliances and attendance, and that in that home the patients should be allowed to call in their own doctors, and if necessary, any surgeons their doctors should decide upon. The scheme as now presented had the support of the doctors, who had already promised or subscribed £900. He knew that the present was rather a bad time to ask the £10,000 required, for the springs of their charity were inclined to be dried up, owing to the very heavy burdens that the tax gatherer was putting on them. Sir Thomas R. Fraser, on behalf of the medical profession, expressed the opinion that the scheme would be a very great benefit to a class not already provided for. Professor Lodge moved a resolution that the meeting cordially approved of the scheme outlined, and resolved to do its utmost to raise the funds required for building and furnishing the home. Lady Susan Gilmour seconded. Provost Smith moved, and Treasurer Harrison seconded, the election of an executive committee. The sum of £2,150 has now been raised.

The Residence for Western Infirmary Students.

The Residence opened in October at 9, University Avenue, has been quite successful, and the students have realized the advantages of seeing urgent medical and surgical cases at the Western Infirmary. The committee will open a second hostel at 20, Ruthven Street on April 10th. It is arranged in the same way as the first, but is lit with electric light, and is almost equally near the Western Infirmary. If a sufficient number of students give in their names to Dr. J. Mill Renton, 1, Woodside Terrace, a third hostel will be opened on October 10th. The charge for board and residence is one guinea a week.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

Women's National Health Association.

A largely attended meeting was held last week in Dublin for the purpose of founding a "babies' club" in connexion with No. 4 South City Dispensary District. Apart from its main object, which was successfully accomplished, the meeting was notable owing to a statement made by Lady Aberdeen with reference to the policy which the Women's National Health Association was willing to adopt towards the Association of United Irishwomen. Recently formed, its objects, according to Sir Horace Plunkett, are, in the first place, to endeavour to induce women living in the country to take an active part in all those parts of the work of co-operative societies with which women are especially competent to deal, and, in the second place, the promotion of better social life in the country. Lady Aberdeen thinks that these objects will make the work of the United Irishwomen in rural communities run very much on the same lines as that of the Women's National Health Association, and in consequence she thought it wise to state publicly that the association of which she is president was willing to work in alliance with the new association. By such an alliance, if it could be brought about, she hoped that overlapping of work and friction could be avoided.

The Housing Question in Dublin.

Two members of the Dublin Corporation recently paid a visit to Birmingham with the object of studying the housing of the working class and other matters of sanitary administration. Their report, with suggestions, will shortly come before the Municipal Council. They urge the Public Health Committee to make it thoroughly understood that in future preventable dilapidation will not be tolerated, and that, if property is allowed to become unfit for human habitation, its demolition will be insisted on. They believe that such a policy will have no appreciable influence in raising rents, and will undoubtedly promote the health of tenants. The necessity of further legislation to regulate the conduct of careless tenants, and to give power to prevent houses now in good repair being allowed to fall into decay is insisted on. They are also of opinion that the formation of a voluntary society for the acquirement of small open spaces throughout the city would achieve excellent results, and they desire that the law relating to feeding of necessitous school children should apply to Ireland.

Royal Victoria Hospital, Belfast.

The annual meeting of this institution was held in the Council Chamber, City Hall on March 29th. The Lord Mayor (Mr. R. J. McMordie, M.P.) occupied the chair. Mr. R. J. Johnstone, F.R.C.S., honorary secretary of the medical and surgical staff, moved the adoption of the medical report, which stated that 3,260 new cases (2,006 surgical and 1,254 medical) had been admitted to the wards; there had been 215 deaths (54 moribund on admission, 96 surgical, and 65 medical); 1,667 surgical operations had been performed with a mortality of 2.8 per cent. The mortality in the surgical wards had been 4.86, and 5.27 in the medical; in the out-patient department 33,124 new cases were treated, including 1,413 ambulance cases. Mr. Johnstone drew attention to the frequent refusal of admission of patients owing to all beds being full, and to the wards kept vacant from want of funds.

Sir John Byers, in moving a vote of thanks to the press, drew attention to the triple function of hospitals—the cure of the sick and relief of suffering, the training of men and women as doctors and nurses for the public, and the advancement of the science of medicine by studying with the aid of the very latest methods of every available science the complicated problems of disease. Sympathetic reference was made in the annual report to the loss sustained by the deaths of Dr. Nelson, consulting ophthalmic surgeon, and Dr. McQuitty, assistant physician.

Special Correspondence.

FRANCE.

Demography.—The Disease of Old Age.—Surgical Selection.

While we are waiting for the results of the census of France it may be worth while to call attention to a short but very well-conceived essay in which one of the pupils of Dr. Berillon, our great statistician, has analysed the movement of the population during the last century in a town which it is considered well reflects the general demographic movement in France. It is a small agricultural community in the centre of France; it receives few immigrants, furnishes few emigrants, and has escaped any sudden and serious change such as is caused by the foundation of new industries; its population has varied in the same proportion as the total population of France. The author draws four conclusions from his examination of the statistics—that there has been: (1) A progressive diminution in the births; (2) a fall in the rate of infant mortality; (3) a fall in the mortality at adult ages;

(4) a rise in the number of old persons and in the mean age of death among the old.

This fourth conclusion is particularly interesting, for it confirms M. Berillon's estimate that in the whole of France during the period 1850–1890 the total number of persons at ages above 60 increased from 3,628,815 to 4,769,153, and that this increase accounted for half of the general increase in the population, and exceeded by nearly a third the increase of the population at the active age—that is to say, from 20 to 60 years. Ought we to congratulate ourselves on this increased multitude of old people? Is it an honour to medicine? Or ought we to commiserate the Minister of the future who will be called upon to adjust the budget to provide workmen's pensions? It is to be feared that too many of our fellow citizens live only to grow old, and throughout the whole course of their working life resign themselves too easily to depressing conditions, looking forward to the blessed day when, loaded with decorations and with years, the State shall take upon itself the duty of providing for their declining days. May there not be in this very thought and in the strength of the hope it engenders a kind of auto-suggestion which in itself conduces to longevity? Professor Metchnikoff would call this a bad joke, since for him old age is a disease, the origin of which should be looked for in the large intestine. This eminent man of science has quite recently again averred that nobody so far has ever died a natural death. People die of injury, of bronchitis, or arterio-sclerosis, and especially and in largest number from intoxication due to poisons elaborated in an abdomen ill-adapted to the habits of modern man; for man has become too omnivorous, and has not learnt how to digest what he has not learnt properly to eat. What then, it may be asked, would Professor Metchnikoff consider natural death to be? Coming after a full life lasting long enough to ensure the complete education of the senses and of the intellect, it would be infinitely blessed and happy. Even then, indeed, it would be due to poisoning, but it would be a poisoning by the toxins of the internal secretions which would accumulate little by little, and their action, as is known of some of them at least, including those of the pancreas and the suprarenal bodies, is remarkably gentle. This view has recently been confirmed by Dr. Arnold, of Carlsbad, who holds that our vital force depends upon the state of certain glands—the thyroid, the liver, the kidneys—the examination of which is becoming daily easier and its results more exact, so that the strength of the individual's resistance to disease and the number of years of life upon which he may count can be estimated. This is all very satisfactory: can there, indeed, be a less scientific way of stating the age of an individual than by giving the number of years that have elapsed since he was born? Here, then, we mark a very great advance. How very satisfactory, for instance, the new system will be in the case of an engaged couple who when they present themselves to be married before the proper officer are able to produce certificates giving the results of the examination of the secretions of the thyroid gland showing that he has forty years to live, while the heiress can count on no more than three? Legal formalities might even be shortened still further by there and then delivering to them their death certificates. These calculations, however, would apply only to those misguided persons who continued to live in the old-fashioned way. There would apparently be no reason why those who carefully superintended the manner in which the large intestine (Metchnikoff's system) and the secretory glands (Arnold's system) discharged their functions should not attain the age of the patriarchs. If so, we shall have to find a new definition of medicine; we might use a phrase which is not new, though he who first uttered it did not understand its full significance—we might say that "Medicine is our guide on the road to a natural death." It appears, indeed, as though the French were on the high road to attain—and, what is more, to attain instinctively—to this natural death; the statistics quoted above show that we have already gone some way along this road, and that we have begun to learn that to be born is nothing, the essential thing is to know how to grow old.

We are encumbered by a crowd of cretins, of feeble-minded persons, of idiots, degenerates of all kinds, whose livers, kidneys, brains, and thyroids are often from the beginning worth nothing. They are no better than places for the acclimatization of micro-organisms which eventually attack healthy persons. The *Revue politique et parlementaire* has recently begun to concern itself with these abetters of an inverse selection, and has supported the demand that their power of procreating should be stopped by the section of various canals. I do not propose to discuss this plan, which, starting from the State of Indiana, has already made the tour of the world and has regained the banks of the Ohio without attracting many adherents on its journey. I would only observe that surgery, whose origins were so humble, since it proceeded from the honourable corporation of barbers and began to exercise its art by performing mere pogonostomies (this word, I hope, is formed in a manner to satisfy your advocates of compulsory Greek), may look forward to a great future; for while it used to be the most intensely individualistic of the arts, it can now legitimately claim to supervise, to control, and to direct the future of the species. Controllers of the birth of useful citizens, guarantors of complete lives, do not doctors more and more justify the appreciation of them expressed by the divine bard of the Odyssey:

> Round the wide world are sought these men divine
> Who public structures raise, or who design;
> Those to whose eyes the gods their ways reveal,
> *Or bless with salutary arts to heal;*
> * * * * *
> These states invite, and mighty Kings admire
> Wide as the sun displays his vital fire?

Correspondence.

COMMITTEE ON TREATMENT OF FRACTURES.

SIR,—The Council of the British Medical Association has appointed a Committee with the following reference:

> To inquire into and report on the ultimate results obtained in the treatment of simple fractures with or without operation.

The Committee is desirous of having the assistance and co-operation of such surgeons, surgical registrars of hospitals, and other practitioners throughout the country as may be in a position to assist the inquiry by letting the Committee have access to records of suitable cases, and by affording assistance in following up the patients to whom the records relate. The investigations of the Committee will be limited to simple fractures of the long bones which have occurred within the five years from January, 1906, to December, 1910.

We shall be glad if members of the profession able to help the Committee in the ways stated will kindly communicate with the Medical Secretary of the Association, 429, Strand, W.C.—We are, etc.,

HENRY T. BUTLIN,
President of the Association.
EWEN J. MACLEAN,
Chairman of Representative Meetings.
J. A. MACDONALD,
Chairman of Council.
EDWIN RAYNER,
Treasurer.
W. J. GREER,
Chairman of Committee on Treatment of Fractures.
FRANK M. POPE,
Chairman of Science Committee.
VICTOR HORSLEY,
President of Section of Surgery, Annual Meeting, 1910.

London, W.C., April 4th.

RENOGRAPHY.

SIR,—The paper by Mr. E. Hurry Fenwick in the BRITISH MEDICAL JOURNAL for April 1st forms a most valuable contribution to the radiographic study of the kidneys; and I gladly hail a lecture of this kind, backed by the world-wide reputation of Mr. Fenwick, as the best means of familiarizing medical men with the powers of *x*-ray diagnosis of throwing light on the condition of the kidneys. There are, however, a few points in his paper which call for comment; these points do not concern matters of skill in carrying out the examinations or in interpreting the results, but concern principally the

method of making the examinations. Again, one feels strongly that *x*-ray examinations should no longer be entrusted to the care of unqualified assistants, though one is tempted to make an exception in favour of the expert technical assistant who has carried out excellent work for Mr. Fenwick. I have personal experience of the technical ability of this gentleman, and of his unfailing courtesy and patience. He took up the work in its most dangerous early days, and he has never shrunk from continuing his labours. In future, however, unqualified men should be strongly dissuaded from taking up this work.

At Guy's we carry out our *x*-ray examinations with the tube below the couch, a method introduced by my colleague Mr. Shenton many years ago. The advantages of this method are very great, and never greater than in the examination of the kidneys. The patient lies prone on the couch, with a loosely filled air pillow under the abdomen; the fluorescent screen rests on his back. If Mr. Fenwick had been in the habit of observing the kidneys on the fluorescent screen, he would not have been surprised to find that the kidneys might descend "an inch or more" with inspiration. He would be aware that the *normal* kidneys have an excursion considerably greater than this, frequently amounting to fully 3 in., the amount of the movement depending not on the condition of the kidneys but on the range of movement of the diaphragm in the particular subject, for it is seen that both kidneys move up and down with the diaphragm, and almost to the same extent as the diaphragm. At the same time, most of the other abdominal viscera (the stomach and intestines, small as well as large) are seen to move. By reducing to a small size the opening in the tube box through which the *x* rays escape, the size, position, and number of renal calculi may be observed on the fluorescent screen, and all the movements of the kidneys described by Mr. Fenwick as occurring with the different respiratory phases may be readily seen and demonstrated to a class. The exact range of movement may be ascertained by the orthodiagraphic method; that is to say, the opening in the tube box is reduced to a very small size, the position of the kidney border is marked on the glass of the fluorescent screen (with a special pencil) during forced expiration. The patient then takes a forced inspiration, the tube box is moved so as to bring the borders of the kidney into view once more, and these borders are marked in the new position. This method is far more accurate than that described by Mr. Fenwick, for it requires no correction for the divergence of the rays which occurs with his method.

The condition which Mr. Fenwick describes as "dense kidney," and supposes due to thickening of the true capsule, is, in fact, entirely different in its significance. The apparent darkness of the kidney shadow depends not on any feature of the kidney, but on the amount of gas present in the colon. Very frequently a patient is brought for *x*-ray examination with the colon so full of faecal matter that it is impossible to make out the outlines of the kidneys. The loins appear uniform in opacity. The patient is then sent back to the ward and given an enema. If he has succeeded in retaining the enema sufficiently long (twenty minutes) to break up the faecal masses before obtaining an evacuation, it is commonly found that the colon then contains enough gas to make the outlines of the kidney shadows stand out sharply defined. Thickening of the renal capsule makes far too little difference to be perceptible.

True dropping of the kidneys is, as Mr. Fenwick remarks, more difficult to measure in the erect posture, for the dropped kidneys commonly fall away from the loin when the patient is upright. Consequently their shadow is far less defined. The free movement of calculi in the upper ureter is a fact well known to those in the habit of carrying out their renal examinations by the method I have described. Accidental shadows in the loins unconnected with the kidneys are recognized at once, for a shadow in the kidney is seen to move with the kidney on respiration, and at the same rate as the kidney; whereas an extraneous shadow (for example, a calcareous gland) may remain at rest while the kidney moves, or (say a faecal concretion in the colon) may move in the same sense as the kidney, but at a different speed and to a different extent. Skiagrams are taken by simply slipping a plate (in light-tight bags) under the fluorescent screen, and making the exposure in any desired phase of respiration.

The method of introducing collargol through a ureteral catheter for investigating the pelvis of the kidney was introduced by Dr. W. F. Braasch, of Rochester, Minnesota. He has obtained very striking results. We are taking up this work at Guy's, and hope to obtain valuable information, but it is essentially work which demands the co-operation of one, like Mr. Fenwick, exceptionally skilled in the use of these special instruments for investigating the bladder and ureters.—I am, etc.,

ALFRED C. JORDAN, M.D.,
Medical Radiographer, Guy's Hospital, S.E.

London, W., April 2nd.

ACUTE EMERGENCIES OF ABDOMINAL DISEASE.

SIR,—In the JOURNAL of April 1st, p. 734, Mr. Moynihan says: "I make, and admit, no exception to the rule that in acute appendicitis in children urgent and early operation is essential." Mr. Moynihan's experience is large, and judging from his address unique. His experience may justify his action, but if followed by other men disaster and discredit are sure to follow. Many of us can testify to the large number of satisfactory recoveries following rational medical treatment of acute appendicitis in children, and I am sure our results will compare very favourably with those of others who adopt the heroic method.

Mr. Moynihan's position is comfortable, because should success not follow an operation then the physician is to blame for not recommending it earlier; if successful the surgeon gets the credit. I have had a large experience in the treatment of appendicitis in children and with most satisfactory results, and rarely have I found it necessary to have an operation in the acute stage, whilst in adults I have found it proportionately more often necessary. I believe my experience to be general, and it is surely a safer course to follow than the heroic system advocated in the otherwise suggestive address.—I am, etc.,

Hawick, April 3rd. JOHN R. HAMILTON.

SIR,—I have read with much interest the address on the acute emergencies of abdominal disease, by my friend Mr. Moynihan, and published in your issue of April 1st. I was particularly struck by the sentence—

> The evidence now appears to me conclusive that the "bilious attacks" of children, accompanied by pain of a griping or colicky character, by vomiting, occasionally by diarrhoea, by slight fever, and by headache, and ascribed to the greedy indulgence in "indigestible" food, are nothing other than mild attacks of inflammation in the appendix.

The number of cases of children operated upon for acute appendicitis whose parents give this antecedent history is surprising, and seemed to me so remarkable, that for some months back, during the course of my examination of school children, as officer to the Huddersfield Board of Education, I have taken short notes and kept record of such cases. I find that many of them have tenderness on pressure in the right iliac fossa, and have pleasure in endorsing Mr. Moynihan's opinion that they are mild attacks of appendicitis.

The following are a few instances of this class of case:

F. B.—Bilious attacks, vomiting and diarrhoea, abdominal pain.

J. B.—Vomiting attacks with colic, pain on the right side.

E. D.—Migraine with vomiting, tenderness in the right iliac fossa.

H. P.—Bilious attacks, mother has had appendicitis, three other children all have similar attacks.

F. W.—Attacks of "gastric catarrh," has mass in the right iliac fossa.

These are all school children at present attending school, the histories being obtained from their parents. The fact is, I think, of grave significance, and well worth following up.

What part, if any, food that is "indigestible" plays in the causation of appendicitis is difficult to say, but I feel sure that it has some relation to the onset of this disease. So many patients give an indigestible meal, or article of diet, as the first cause of their symptoms.

With reference to this, a case I saw last week under the care of my colleague, Mr. Marshall, is of interest: A family had partaken of tinned salmon, and a few hours

afterwards several members were ill with ptomaine poisoning. One, a child, was brought into the infirmary with acute appendicitis, a gangrenous appendix with most offensive pus being present.—I am, etc.,

Huddersfield, April 4th. G. W. KILNER CROSLAND.

BROCA'S APHASIA.

SIR,—I am obliged to Dr. Elder for his courteous comment on my paper, and I admit that I had failed to understand what Professor Wyllie had written, although I tried to avoid misrepresenting him by so far as possible using his own words. This hypothetical callosal speech tract which is supposed to run from the third left frontal convolution across to the right side of the brain and thence through the right internal capsule to the medulla, would explain why in certain cases a lesion of the left internal capsule would only cause partial disorder of speech.—I am, etc.,

Birmingham, April 3rd. ROBERT SAUNDBY.

THE CARDIO-SPLANCHNIC PHENOMENON OF ABRAMS.

SIR,—If Dr. Auld had given a little more attention and thought to my papers he would have saved us both trouble. I have not said that Dr. Abrams has "confounded the sounds," but that he has "confused percussion sounds with percussion sensations of resistance." That is perfectly obvious from the passages I have quoted. I have not discussed "deep dullness" and "superficial dullness" because the distinction between them does not affect in the least the difference between Dr. Abrams's statement and mine. The dullness measurements of Dr. Pickard, Dr. Solly, and myself are incompatible with Dr. Abrams's statement. That also, I venture to say, is obvious. Does Dr. Auld suppose that "deep dullness" and "superficial dullness" are two quite separate phenomena which may overlap?—I am, etc.,

Exeter, April 1st. W. GORDON.

MEDICAL TREATMENT OF INOPERABLE CANCER.

SIR,—I gladly accept Dr. Thomas J. Horder's offer[1] to set aside a certain number of cases of those under his care at the Cancer Hospital in order that the effects of diet may be tested.

I feel sure that his clinical and pathological observations will be of great assistance; indeed, I could hardly undertake this extra work without such help. I see also a further advantage in this offer, in that the treatment at the Cancer Hospital will probably be more permanent and continuous than it can possibly be in a general hospital, where patients often have to be sent out at the end of a few weeks, so that there is no certainty either that the treatment will be properly carried out, or that one will ever hear any more of the patient.

I think it must be admitted that, in regard to the cases which impressed me, there is as yet no scientific certainty that the disease was cancer (for some fibroid tumours are curable by diet, and one of my own cases may have been of this nature). On the other hand, there is nothing inherently improbable in the suggestion that the diet which prevents cancer and cures the rheumatism, so often associated with it, may in some cases even cure cancer. In our present condition of uncertainty on these subjects, I welcome Dr. Horder's offer of a cautious scientific trial of diet in selected cases of undoubted cancer.

Even if we do but succeed in mitigating the symptoms in these inoperable cases, it would be an encouragement to further experiment in cases not so far advanced towards an end that is now considered inevitable.—I am, etc.,

London, W., April 4th. ALEXANDER HAIG.

LADY HEALTH VISITORS OR WOMEN SANITARY INSPECTORS?

SIR,—I was very pleased to read the contributions from Miss Carey and Mrs. (Dr.) Warner in the JOURNAL of April 1st. The former, of course, shows that the women who have gone to the trouble and expense of qualifying as sanitary inspectors can see that the action of the Royal Sanitary Institute is jeopardizing their prospects considerably. Only a few large and wealthy authorities can afford to pay more than *one* woman official in the public health department. The question with them will now be, Which shall we have, a woman sanitary inspector or a lady health visitor? Their next query will be, not, Which is the better kind of woman? but Who is the cheaper? It will be of no use for the medical officer of health to tell his councillors that he prefers a well-trained woman to a half-trained one.

Mrs. Warner's own letter shows that as "lady health visitor" at Croydon only part of her time was spent in visiting lying-in mothers and newly-born infants. Quite so. Her duties probably included visiting women home-workers, women and girls in the factories or workshops, women and children suffering from erysipelas or tubercle, cases of puerperal fever, etc. She would probably be expected also to visit homes where scholars were suffering, or said to be suffering, from measles, whooping-cough, mumps, chicken-pox, etc. The one woman official in a small district would be.

Your readers will note that Mrs. Warner considers that the training should extend over three or four *years*, not three or four months. I agree, in so much as my ideal woman inspector is one with three years' hospital training, which has included some experience in children's wards, and, if possible, in fever wards, with the certificate of midwife, and, lastly, at least three months' pupilage under a medical officer of health. Mrs. Warner must admit that the better a woman official's training in general sanitation has been the better reports she is able to present to the medical officer of health as regards the sanitary or insanitary conditions of the houses she has visited the day before. A sanitary home is as much a necessity for keeping an infant or the children healthy as matters of clothing and diet.

Professor Bostock Hill is apparently unaware that one of the chief objects of Mr. John Burns's bill is to make a woman engaged in the public health service a statutory official, so that the local authority can get back half of her salary from the county council.

The recent methods of the institute will encourage specialism. We shall presently have further examinations established and certificates given for each of as many sections as that body can divide hygiene into. The Sanitary Institute has already established examinations and certificates with reference to no less than six sections. Are these all necessary? Local authorities, unless large and wealthy, cannot maintain specialist inspectors, male and female. What they require are good all-round officials. I hope Professor Hill will use his great influence with that of Dr. Parkes to check the Institute in its sectional activities, and to establish one good examination after proper training which will qualify women to take office in any public health department, not only in the provinces, but also in London.—I am, etc.,

SIDNEY C. LAWRENCE,
London, N., April 3rd. M.O.H. Edmonton.

TO HELP THE BRITISH MEDICAL BENEVOLENT FUND.

SIR,—Having acted as Honorary Secretary some years since to the British Medical Benevolent Fund, I have been much interested in the letters of my old friend Professor Howard Marsh and others advocating the claims of this charity. I wish most heartily to support them, as I have long been in the habit of saying to others that this is the most excellent charity with which I am acquainted either in or outside the profession. The quiet, unobtrusive way in which inquiries are made as to the circumstances of the applicants and assistance promptly given makes the donation or annuity bestowed doubly welcome. Having acted as almoner on many occasions, I can testify to the beneficial results and as to the earnest gratitude of the recipients.

My immediate object in writing, however, is in regard to Dr. Joseph Griffiths's proposal in your issue of April 1st that a sum of £100,000 should be raised and invested for the purpose of relieving distress among the widows and orphans of the profession, in order to point out that one of our medical charities has at the present time more than that amount invested in first-class securities.

It is true that the Society for the Relief of Widows and Orphans of Medical Men confines its operations to London and its vicinity, but even so, how few of those entitled to become members avail themselves of the

[1] BRITISH MEDICAL JOURNAL, April 1st, p. 785.

privilege? If, instead of its 300 members, there were 3,000, I take it there would be fewer calls upon the other and less wealthy charities. I have heard medical men practising in the country say, "Would that I had joined the Widows and Orphans Society before I left London." Let me, as an old house-surgeon who wishes to do a good turn to those who are following him, call the especial attention of London house-surgeons—and others whom it may concern—to the following extract from a recent annual report of the society:

> Membership is open to any registered medical practitioner who at the time of his election is resident within a twenty mile radius of Charing Cross. Should any member remove beyond the limits of the society he nevertheless continues to be a member. The annual subscription is two guineas.

As to the advantages to be gained I must refer those interested to the secretary at 11, Chandos Street, Cavendish Square, W.—I am, etc.,

Newbury, April 3rd. STAMFORD FELCE.

SIR,—What is to hinder the Association taking this up in a practical way? I have read many letters in the JOURNAL dealing with this subject, but none so sensible or practical as Dr. Joseph Griffiths's (BRITISH MEDICAL JOURNAL, April 1st, p. 784). I am quite sure that a fund on the lines he suggests would meet with the approval of general practitioners. There is no reason, other than apathy, why we do not provide for ourselves. The present would be a good time to discuss the matter, when the Branches are whipping up their members.—I am, etc.,

April 3rd. G. P.

SIR,—I am afraid Dr. Griffiths's suggestion in reference to the British Medical Benevolent Fund is hardly practical. He evidently overlooks the benevolent funds already started many years ago, and those of us who have been subscribers for years would hardly entertain the idea of being made compulsory subscribers to some new fund. I may mention the one to which I have belonged for nearly a quarter of a century—the Essex and Herts Medical Benevolent, which not only assists widows and orphans of medical men, but also gives help to its members when they have fallen upon critical times. I would suggest that every county organized such an association, and on similar lines, for those residing in it who are not already provided for in that way; but for the British Medical Association to make anything of the kind compulsory would lead to the resignation of a number of its members.—I am, etc.,

Fulbourn, near Cambridge, April 2nd. F. L. NICHOLLS.

*** An account of all the medical benevolent societies of which particulars could be obtained was published in the BRITISH MEDICAL JOURNAL, 1907, vol. i, p. 512.

POOR-LAW INFIRMARIES AND HOSPITALS.

SIR,—My attention has been drawn to the report of a speech delivered by the Hon. Sydney Holland, at a meeting held in connexion with the Poplar Hospital, in which he gives utterance to one or two remarkable statements regarding the management of Poor Law infirmaries. His words, as I have them before me, taken from the issue of the *Daily Chronicle* of March 23rd, were as follows. He said:

> In the management of the Poor Law infirmaries there was one thing missing—that was, a big heart. The whole spirit of the Poor Law was to do as little as possible for people in distress, whereas the spirit of the hospital was "We do all we can for you." That was the difference between the hospital and the Poor Law infirmary.

If the Hon. Sydney Holland has been accurately reported—and I have no reason to believe otherwise—then I venture respectfully to inform him that what he says is a distinct travesty of fact; nay, more, that it is a libel upon institutions which are carrying on work for the alleviation of the sufferings of the poor as good as, if not better than, the hospitals are.

Any one who is conversant with Poor Law work and knows the truth concerning the conduct and management of our London Poor Law infirmaries cannot but conclude that either Mr. Sydney Holland is quite ignorant of the subject on which he professes to speak as one having authority or else he has been sadly misinformed. No one will dispute his right to speak concerning hospitals, but has he had sufficient practical experience of, and is his knowledge of Poor Law infirmaries sufficiently intimate, to warrant his wholesale condemnation of them? I venture, from the tone of his speech, to suggest not.

In the first place, he accuses the Poor Law infirmaries of being lacking in large-heartedness. Does he mean that they are indifferent to the sufferings of their patients? As one who has had experience of general hospital and Poor Law infirmary work, both in the provinces and in London, I can honestly aver that so far as the "milk of human kindness" is concerned the supply of that is as plentiful in the Poor Law infirmary as it is in the hospital. Sometimes I think it is even more so, because the class of patients met with in the infirmary—old people, infirm and helpless, people with incurable diseases, homeless youths, and parentless children, to say nothing of the numerous "cast-offs" from the hospitals, which in themselves constitute a fair proportion of the total cases—is quite different to that met with in the general hospital. Should Mr. Sydney Holland, however, be inclined to disbelieve this, I would invite him to pay a visit to any one of our Poor Law infirmaries, and I am sure his mind will be speedily unburdened of its doubt.

The second and more serious accusation is that the Poor Law infirmary is actuated by the spirit of "do as little as possible," in contradistinction to the hospitals, which are moved with the higher (*sic*) motive "do all that is possible" for those in distress. In other words, the Poor Law infirmaries are accused of shirking their work, and of being disloyal to the charge reposed in them by the public. To his entire statement I give an emphatic denial. If it were true, Mr. Sydney Holland would be able to substantiate it by facts. I challenge him to do so. Quoting again from my own experience, I will assert emphatically that the work done in the London Poor Law infirmaries is as well and as thoroughly done, and with as good results, considering the numbers dealt with and the size of staff available to do it, as it is in any one of the London general hospitals. Doctors and nurses give their best to the work, and that often under very hard and trying conditions, of the nature of which no general hospital staff can have any conception; and what can the staff of any hospital give more than its best?

Let me renew my appeal to Mr. Sydney Holland either to substantiate his allegations against the London Poor Law infirmaries, or if that is not possible, as I hold it is not, to withdraw.—I am, etc.,

London, N., March 24th. J. JOHNSTONE JERVIS, M.B.Edin.

"A GOSPEL OF DIRT."

SIR,—I have read with interest the article in the JOURNAL of March 25th entitled "A Gospel of Dirt," and I cannot help feeling sorry that only the negative part of a lecture full of great constructive ideas has been referred to in the JOURNAL.

I think that any one who heard the lecture would agree with me that the point of it was, not that we must *not* wash, must *not* breathe fresh air, and so forth, but that we must not sit with folded hands complacently believing that we have solved the mystery of disease by the mere opening of windows and the like.

Mankind can only be relieved from the great scourges which afflict it by the work of the scientist, and the scientist cannot live on air alone, pure or impure. Therefore until enough money is given to enable a sufficient number of scientists to devote their time to research work we shall continue to be afflicted with numerous diseases—epidemic or otherwise.

Of the fact that disease can be conquered by science, we of the general public have ample proof. Vaccination for small-pox, the vaccine treatment of typhoid, and the serum treatment of diphtheria must convince the most unbelieving. But, as Pasteur said, "there is so much yet to do." These great discoveries have only been made after years of patient work in the laboratory.

I have no doubt that, had the papers reported Sir Almroth Wright's lecture in full, instead of printing a few mutilated fragments, which they conceived might make amusing reading for the less thoughtful among their readers, money would now be pouring into the research funds of our hospitals.—I am, etc.,

London, W., March 27th. DOROTHY WINKWORTH.

*** We should be grieved if we thought that we had in any way helped to divert the stream of gold which in our

correspondent's ecstatic vision would now, but for the frivolity of the newspapers, be pouring into the research funds of our hospitals. But we must be allowed to point out that the fault is not ours even if a Chrysostom of the medicine of the future fails to impress "great constructive ideas" on a popular audience when he goes out of his way to scoff at the lowlier facts that lie within their own experience. We must submit to be numbered among the "less thoughtful," all the more cheerfully since we are in such good company as that of Lord Justice Fletcher Moulton, who was in the chair on the occasion when Sir Almroth Wright tickled the ears of the groundlings by his warning as to the dangers of soap and water, and his denunciation of the "dreadful superstition" of fresh air in tuberculosis. As we have not seen any report of his lordship's speech in the papers, it may not be out of place to quote his remarks here:

"Lord Justice Fletcher Moulton, in proposing a vote of thanks to Sir Almroth Wright for his address, referred to the skill with which he had commanded the serious attention of those present while he was attacking all their cherished beliefs. But these beliefs were not to be surrendered without a struggle. They were exhorted not to wash, because the defensive outworks which Nature had cast round the body would be weakened thereby. But was this argument quite conclusive? He believed that one of the first duties of a commander of a beleaguered fortress was to clear away any woods that were within reach so that nothing would be left to shelter the enemy around him; and Sir Almroth Wright would be the last one to deny that perhaps washing would rid them of something which in a similar way might harbour microbes. He felt in his mind that the very extreme views so cleverly expressed by Sir Almroth Wright in his lecture had been put forward perhaps by him in this unqualified way as a means of arresting the attention of his hearers, and in order to impress on them with more force the very valuable result of the work with which his name was associated, and in which such rapid strides had been made of late years. It represented a side of knowledge which had been neglected, and his words would make them all reflect; and, whether they accepted his destructive criticism or not—and Sir Almroth Wright would be the last one to wish them to do so without due consideration—he was satisfied that those present would think over the ideas he had put before them, and he trusted that the National Health Society would realize their value and not fail to give heed to the dangers to which he had referred and their remedy."

In these remarks Lord Justice Fletcher Moulton displays the argumentative subtlety which might be expected from so distinguished a lawyer. But could there be a more pathetic picture of that which the ancients looked upon as a sight for the gods—a good man struggling with adversity?

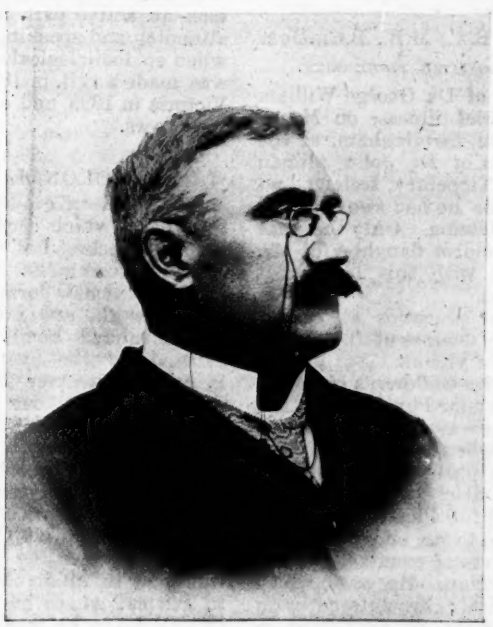
Obituary.

LEONARD STRONG McMANUS, M.D., M.Ch.R.U.I.,

DIRECT REPRESENTATIVE, GENERAL MEDICAL COUNCIL.

ON Sunday morning, March 26th, at Mayo House, Spencer Park, at the comparatively early age of 54, there passed quietly away, after a long and trying illness, one of the Direct English Representatives on the General Medical Council—Leonard Strong McManus, M.D.

Dr. McManus was born at Killeadean, co. Mayo, educated in Dublin, and in 1882 took the degrees of M.D., M.Ch. at the Royal University of Ireland. About a quarter of a century ago he settled in Battersea and at once showed himself an indefatigable worker, not only in purely medical, but also in ecclesiastical, political, municipal, and social affairs. In all of these he was always willing to give his services ungrudgingly, to act as chairman of meetings, on committees, or drawing-room meetings at his own house, or in any other way which would forward the interest in hand. He was a Churchman, Conservative in politics, and a Moderate in municipal affairs on the Battersea Borough Council, and it was largely through his untiring work that at the last borough election the Progressives were beaten and the Moderates placed in an overwhelming preponderance.



His municipal work was done chiefly on the Public Health Committee, and it was whilst serving in this capacity that he was mainly instrumental in starting the milk dépôt, and was always to the front in demanding that all work done in this department should be thorough and up to date.

He was an active member of the British Medical Association, and when under the new constitution the Wandsworth Division was formed in 1903, he became a member and served on the Executive Committee in 1904; he was Vice-Chairman in 1905, and Representative in 1905, 1906, and 1907. He also served on various Central Committees—Medico-Political, 1905–6; Parliamentary Subcommittee, 1905–6; Lunacy Law Amendment Subcommittee, 1905; Public Morality Subcommittee, 1905–6; Contract Practice Subcommittee, 1906; Joint Subcommittee of British Dental Association and British Medical Association on Medical and Dental Acts Consolidation Bill; Midwives Subcommittee, 1906; King Edward's Hospital Fund Bill Committee, 1906; Special Finance Inquiry Committee, 1906.

This list would, no doubt, have been much longer had he not been obliged to resign his membership of the British Medical Association on taking his seat on the General Medical Council. His election to the latter body was a proof of the respect and confidence of the medical profession in his ability to represent their interests in a body strictly limited in its activities by statute; there he was eager, in concert with his colleagues, to do all he could for the benefit of his professional brethren. No better proof of this can be given than the fact that he attended the last session in November during his illness, and had to go direct from his bed to the meetings.

In Battersea he carried on a large practice in addition to his other numerous engagements; he was twice elected President of the South-West London Medical Society, his last year of office only expiring in October, 1910. During his last illness he was engaged as arbitrator in a dispute between two medical men, and such was his energy that he had to leave his bed to take part in this matter, and a great part of the business was transacted in his room. There can be no reasonable doubt that in spite of his splendid physique he wore himself out by his excessive labours.

He was a typical Irishman, and, like all his educated fellow countrymen, a charming companion, full of wit and racy and appropriate stories, and awake to the humorous side of things. His appearance denoted great physical strength.

He was a born fighter, and never so pleased as when he had a cause to be won by hard fighting, and yet his opponents, even after a severe castigation, could not bear enmity, owing to his personal charm. The local medical profession has lost a fighting comrade from its ranks, and such members, being always rare, are much missed.

He served for years on the Board of the Bolingbroke Hospital, and in that capacity was always ready to listen to and do his best to remedy any abuse. During the last year of his life he was much interested in the establishment of the Battersea Antituberculosis Dispensary.

His general popularity was attested on Saturday, April 1st, by the large concourse of people of all ranks who attended the funeral; the first part of the service was held at St. Peter's Church, Plough Road, where he used to attend during the earlier years of his residence in Battersea, and his remains was committed to the grave at St. Mary's Cemetery, Battersea Rise. Among those present at the funeral were Mr. John Burns, President of the Local Government Board, Dr. Alfred Cox, Deputy Medical Secretary, attending on behalf of the Council of the British Medical Association, and representatives from the Wandsworth Division of the British Medical Association, the South-West London Medical Society, the Irish Medical Schools' and Graduates' Association, and of the various bodies on which Dr. McManus had served, and all felt that he had worked heartily whilst it was yet day, knowing that the night cometh, when no man can work.

Professor SAUNDBY writes: I was grieved and surprised to see the announcement of the death of Dr. L. McManus, whom I had come to know, respect, and like very sincerely since he was elected a Direct Representative on the General Medical Council nearly five years ago. He was present at the session of the Council in November last and I did not notice any departure from his usual appearance of good health. I cannot speak too highly of him as a member of the Medical Council and as Direct Representative of the profession. To sound judgement he added considerable ability as a speaker, and all that he said and did was marked by a dignity and grace that enforced his arguments and conciliated his opponents; it was, in fact, a happy combination of *suaviter in modo* and *fortiter in re*. His death is a great loss to the Medical Council and to the whole profession, for men of his type are of the utmost value, and we may all hope that when the autumn elections come round a successor may be found to take his place as worthy, as genial, and as able.

GEORGE WILLIAM POWELL, B.A., M.B., B.CH.DUB.

SENIOR PHYSICIAN, THE CHILDREN'S HOSPITAL, BIRMINGHAM.

WE regret to announce the death of Dr. George William Powell, which occurred, after a brief illness, on March 23rd at his residence at Edgbaston, Birmingham, at the early age of 49. He was the son of Dr. John Allman Powell of Parkmore, Roscrea, co. Tipperary, Ireland, and he came of a family of doctors, for he had two brothers and a nephew in the medical profession. Only the year before last he was married to the eldest daughter of Mr. Henry Parish of Edgbaston, and with this lady great sympathy is felt in her bereavement.

Dr. Powell received his medical education at Trinity College, Dublin, where he took the degrees of B.A., M.B., B.Ch. in 1884. He studied also in Vienna. At the time of his death he was Physician to the Children's Hospital, Birmingham, and had been the Senior Physician for the last six years. His first appointment at this hospital was upwards of twenty-two years ago, when he became Junior Resident Medical Officer, and this post was followed by that of Senior Resident Medical Officer. He was elected Extra-acting Physician in 1891, and full Physician in 1897. His term of office would have come to an end in May of this year, when in the ordinary course of events he would have been elected consulting physician. He was greatly attached to the Children's Hospital; he entered with vigour and keenness into the plans for its rebuilding in Ladywood Road, and made most valuable suggestions for the general arrangement of the wards.

With his medical colleagues Dr. Powell was very popular; he was a good physician, and most conscientious in the performance of his professional duties. He was one of the most charming men it was possible to know, having a most kindly disposition and courteous manner; he had a great number of friends who mourn sincerely his early death.

The funeral took place at Harborne Parish Church on March 28th. The service was conducted by the Ven. the Archdeacon of Birmingham and the Rev. A. Perowne. There was a large gathering present, including his medical colleagues at the Children's Hospital, many of the members of the Board of Management, and numerous medical men and other personal friends.

SURGEON-GENERAL JEFFERY ALLEN MARSTON, C.B., A.M.S.,

HONORARY SURGEON TO THE KING.

SURGEON-GENERAL JEFFERY ALLEN MARSTON died at his house in London on March 31st at the age of 79. He took the diplomas of M.R.C.S. and L.S.A and the degree of M.D. (St. Andrews) in 1854. He became M.R.C.P.Lond. in 1887 and F.R.C.S.Eng. in 1888.

He entered the Army Medical Service as Assistant Surgeon November 10th, 1854; became Surgeon June 8th, 1867; Surgeon-Major March 1st, 1873; Brigade Surgeon November 27th, 1879; Deputy Surgeon-General November 18th, 1882; and Surgeon-General May 7th, 1889. He retired on October 16th, 1889. He served for a considerable time in India, and while holding a sanitary appointment there came under the influence of the late Dr. Bryden, who held strong views with regard to the nature and seasonal prevalence of cholera. These Marston adopted, and they led him to entertain considerable doubts as to the waterborne theory of the disease and as to the validity of the bacteriological observations which have within the last twenty years become established.

He was Sanitary Officer during the Egyptian war in 1882, and was present at the battle of Tel-el-Kebir; he was mentioned in dispatches, granted a medal with clasp and the Khedive's bronze star, was promoted to be Deputy Surgeon-General, and awarded the third class of the order of the Osmanieh. In 1887 he became Acting Professor of Military Hygiene at the Army Medical School, Netley. He was afterwards appointed head of the Sanitary Branch of the Medical Department of the War Office, Member of the Army Sanitary Committee, President of the Army Medical Board, Member of the Indian Medical Board, Member of the Commission on Queen's College, Ireland, and Delegate of the British Government to the International Medical Congress at Washington. During the time that he was at the head of the Sanitary Board he took an active part in the medical life of London, often attending and speaking at meetings of the medical societies when epidemiological subjects were under discussion. He was made a C.B. in 1887, and Honorary Surgeon to Queen Victoria in 1899, and occupied the same position under her successors.

LIEUT.-COLONEL J. T. W. LESLIE, C.I.E., I.M.S.

MANY Aberdeen graduates will learn with deep regret of the death, which occurred on March 27th, of Lieutenant-Colonel Leslie, I.M.S., Sanitary Commissioner to the Indian Government. Colonel Leslie had been suffering from functional derangement of the heart, brought on by overwork, and after some weeks spent at Agra he was invalided home. He reached Bombay much exhausted by the long railway journey, and joined the P. and O. steamer *Egypt*. His health improved with the sea voyage, but he relapsed at Port Said, and on reaching Marseilles on March 24th he was taken to a nursing home, where he died.

He was born in Aberdeen in 1861, and spent his early boyhood at the Gymnasium, Old Aberdeen. From school he went, at 16 years of age, to Aberdeen University, where he graduated M.B., C.M. in 1882. Entering the Indian Medical Service, he passed out first from Netley. He was sent to Allahabad and, on the outbreak of the war, to Burma, where he saw active service. After a period of sick leave he was sent to Rangoon, but the climate there did not suit him, and in 1892 he accepted the position of Acting Chemical Examiner to the Government, and Professor of Chemistry in the Medical College in India. As a lecturer he was very successful, and at the close of the session in 1893 he was appointed Secretary to the Director-General of the Indian Medical Service and Sanitary Commissioner with the Government of India, and took up his residence at Simla. As Sanitary Commissioner, Colonel Leslie lived for his work, and did much to stay the plague. For weeks he lived in railway carriages, travelling thousands of miles all over India, accompanied by a couple of clerks, with whom he worked unceasingly. He organized

the Malarial Conference opened by Lord Minto at Simla in 1909. He received the C.I.E. in 1909.

He leaves a widow and two daughters to mourn his loss; to them the sympathy of all old friends and brother officers is heartily extended.

LIEUT.-COL. SIMPSON POWELL, M.D., R.A.M.C., S.M.O. RANGOON.

WE regret to announce that Lieutenant-Colonel Simpson Powell, M.D., R.A.M.C., died of pneumonia at Rangoon, where he was Senior Medical Officer, on March 23rd, aged 53.

Colonel Powell was the eldest son of the late Christopher Bolland Powell, of Southborough, Kent. He was educated at Bury St. Edmunds School, and received his medical education at King's College, London, where he held in succession the appointments of House-Physician and House-Surgeon. He took the diploma of L.S.A.Lond. in 1880, and that of M.R.C.S.Eng. in 1882. He was also a graduate of Durham University, having taken his M.B. degree (with honours) in 1883, and that of M.D. in 1896. Among other distinctions he gained the Parkes Memorial Bronze Medal for Hygiene and the Todd Memorial Medal for Clinical Medicine. He was also elected a Fellow of the Royal Geographical Society in 1904, and of the Linnean Society in 1910.

He entered the Army Medical Service in 1885, and from that year until 1892 he served in India; he then returned to England, and was attached to the Grenadier Guards as Surgeon for five years. In 1897 he again went to India, and served there until 1904. During 1902 he was for a few months in charge of the Boer Camp at Trichinopoly, leaving there for Tientsin, China, to take up the appointment of Senior Medical Officer at that place; this was just after the Boxer rising, when the European troops were occupying the city.

On returning to England he was appointed Officer-in-charge of the Louise Margaret Hospital (the hospital for the wives and children of the soldiers of the Aldershot Command). He held this appointment for three and a half years, and after that was in temporary charge of the Military Isolation Hospital at Aldershot. He was gazetted Lieutenant-Colonel in 1905. In 1908 he again sailed for India and was appointed to Secunderabad, and the following year he was posted to Burma.

He is survived by his widow and four daughters.

DR. LEONARD W. SEDGWICK, who died recently at his residence in Gloucester Terrace, Paddington, at the age of 82, had practised there for over forty years. He received his medical education at St. Thomas's Hospital, and took the diplomas of M.R.C.S. and L.S.A. in 1850, and the degree of M.D. (St. Andrews) in 1859. Dr. Sedgwick was a member of the British Medical Association, and was President of the Metropolitan Counties Branch in 1894. In that capacity he delivered an address on the personal factor in disease, which was published in the BRITISH MEDICAL JOURNAL. He was at one time Vice-President of the Medical Society of London, and was for many years a familiar figure at its meetings and at other medical gatherings in London. He is perhaps best known to the profession as the joint author with Mr. Power of the excellent *Lexicon of Medicine* issued by the New Sydenham Society.

Universities and Colleges.

UNIVERSITY OF OXFORD.

Diploma in Ophthalmology.

THE next examination for the diploma in ophthalmology commences on July 17th, and in anticipation thereof a special course of instruction will commence on May 1st, and continue daily for six weeks. It includes systematic and clinical lectures in ophthalmology, practical pathology, anatomy and physiological optics. For the systematic lectures a special panel of lecturers has been prepared. The clinical lectures will be given by the Reader in Ophthalmology (Mr. R. W. Doyne). A certificate of satisfactory attendance at the course of instruction is one of those which a candidate for the diploma must present, but in certain approved cases candidates of obvious experience may be exempted from attendance except on Wednesdays and Thursdays. The lectures on ophthalmology have been so arranged that those doing clinical work in London may leave by the 1.45 train from Paddington. Parts of the course are open as a form of post-graduate work to those not seeking the diploma. Other information concerning the course and the diploma can be obtained on application to the Assistant Registrar, Clarendon Buildings, Oxford, or, if only of an informal character, from the Reader in Ophthalmology, 30, Cavendish Square, London, W.

UNIVERSITY OF LONDON.

THE following candidates have been approved at the examinations indicated:

SECOND M.B. (*Part I: Organic and Applied Chemistry*).—D. R. Alexander, B. P. Allinson, A. R. Balmain, F. G. L. Barnes, S. Batchelor, A. L. Blunt, F. H. Bray, C. M. Brophy, J. E. Cheesman, Dorothy Chick, J. E. Clark, Lilian A. Clark, Mabel C. Clark, C. Cooke, E. J. Coombe, P. G. S. Davis, A. D. d'Avray, J. N. Deacon, C. I. de Silva, H. Ellis, H. A. Fawcett, I. Feldman, H. R. Friedlander, E. D. Granger, A. E. Gravelle, H. S. Griffith, E. F. Guy, S. A. Hall, Norah Hamill, A. G. P. Hardwick, C. E. Harrison, Jessie E. Hart, H. W. Hay, S H. Hodges, H. F. T. Hogben, R. N. Hunter, G. M. Jackson, L. P. Johns, Mary E. Joll, C. O. H. Jones, R. T. Jones, S. W. M. Jones, T. A. Jones, N. E. Kendall, W. M. Lansdale, R. H. Leigh, *A. S. Liebson, G. C. Linder, O. C. Link, E. R. Lovell, Helen M. M. Mackay, S. S. Malkani, P. S. Marshall, A. Menzies, V. M. Métivier, S. Miller, D. G. F. Moore, J. B. Mudge, Violet Newmarch, O. Parry-Jones, Margaret R. Paterson, A. H. Pemberton, *A. C. Perry, L. D. Phillips, Emma C. Pillman, L. E. Pimm, Mary C. Poonen, C. L. G. Powell, A. L. Punch, K. N. Purkis, J. S Ranson, T. W. Robbins, Violet I. Russell, P. Sai, B. Sampson, S. K. Sanyal, Hilda M. Scarborough, P. R. J. Schmidt, Edith A. Shaw, B. B. Silcock, A. G. Simmias, J. F. H. Stallman, Elsie Stansfeld, J. G. Stevens, F. R. Sturridge, T. C. Summers, E. B. Sunderland, *W. E. Tanner, D. G. C. Tasker, J. O. Thomas, G. M. Vevers, Katharine A. Waring, C. M. Williams, L. H. W. Williams, M. S. Woolf, J. M. Wyatt.

* Awarded a mark of distinction.

SECOND M.B., PART II (*Anatomy, Physiology, and Pharmacology*).—F. D. Annesley, J. Appleyard, B. W. Armstrong, Elizabeth L. Ashby, E. Bach, W. C. P. Barrett, J. R. Barrow-Clough, F. V. Bevan-Brown, A. C. L. O'S. Bilderbeck, Marjorie A. Blandy, J. Bostock, A. E. Bullock, P. Butler, G. M. Campbell, R. J. Clausen, T. P. Cole, Dora C. Colebrook, D. M. Connan, M. B. Cooper, J. A. Cowan, W L. G. Davies, F. H. Dodd, H. W. Evans, J. T. E. Evans, W. S. Evans, H. J. O. Ewing, H. Gould, Olive G. M. Gray, C. F. Hacker, A. C. Hancock, Mary E. Harding, C. C. Harrison, J. Higgins, E. S. W. Hirsch, A. H. Hudson, G B. Jameson, Mildred A. Jukes, M. M. Khan, R. M. Kharegat, W. J. T. Kimber, W. E. Kingdon, E. A. C. Langton, W. Leslie, W. H. Lister, R. J. McN. Love, Helena R. Lowenfeld, *†Edith M. Martland, ‡W. E. Milligan, P. J. Montgomery, L. Page, S. G. Papadopoulos, T. B. Paul, A. F. Potter, R. A. Preston, J. L. Priston, A. L. H. Rackham, A. E. Roberts, T. E. Roberts, H. E. Robinson, E. D. Scott, B. Silcock, ‡J. S. Sloper, Margaret E. E. Smith, T. R. Snelling, E. S. Sowerby, W. C. Spackman, C. W. Sparks, J. E. Stacey, Grace Stapleton, E. J. Storer, C. K. Sylvester, H. Thomas, E. W. Wade, G. A. Walker, F. C. Watson, W. L. Webb, E. W. Whiting, F. E. S. Willis, D. H. D. Wooderson, Mary Woods.

* Distinguished in Anatomy. † Distinguished in Physiology. ‡ Distinguished in Pharmacology.

UNIVERSITY OF DURHAM.

THE following candidates have been approved at the examinations indicated:

THIRD M.B. (*All Subjects*).—*J. S. Arkle, E. Babst, Theonie R. Burrell, *H. G. Dodd, L. E. S. Gellé, W. J. Hickey, F. S. Rood, S. Scott.

* Second-class honours.

DEGREES.

At a Convocation on Saturday, April 1st, the following were among the degrees conferred:

M.D.—G. Denholm, Helen M. Gurney, T. C. Hunter, A. C. H. McCullagh.

M.D. (*for Practitioners of Fifteen Years' Standing*).—P. Barragry, G. Bryce, J. J. Fitzgerald, L. G. Hill, J. S. Mackintosh, J. Robinson.

M.B.—W. G. Bendle, R. Errington, F. P. Evers, H. T. Hunter, E. P. Martin, T. A. Peel, J. A. Sacco, Matilda A. Sinclair, A. T. Thompson, Olivia N. Walker, T. R. West.

B.S.—W. G. Bendle, R. Errington, F. P. Evers, H. T. Hunter, T. A. Peel, Matilda A. Sinclair, Olivia N. Walker.

B.HY.—T. L. Bunting, M.D.Edin., Ruth Nicholson, M.B., B.S.Durh.

UNIVERSITY OF EDINBURGH.

Degrees.

THE following were among the degrees conferred at a meeting of the Senate on March 31st:

M.B., CH.B.—A. G. Brown, M.A., C. M. Ganapathy, S. Hodkinson, G. Macdonald, M.A., J. P. M'Gregor, R. C. Malhotra, C. K. Pole, A. Simpson, T. Singh, and J. Watson.

D.SC.—A. C. MacGilchrist, M.D., Captain, I.M.S.

The following candidates have been approved in the subjects indicated:

FIRST M.B., CH.B.—*Botany:* T. Bahadur, Isabel Mitchell, B.Sc., H. P. Rudolf. *Physics:* F. A. Anderson, J. M. Anderson, J. S. Armstrong, T. Bahadur, F. W. W. Baillie, Dorothea I. Baird, T. Y. Barkley, G. E. Besson, I. Block, I. Borrah, R. B. Boston, J. Brown, J. G. L. Brown, F. J. Cahir, A. F. Campbell, A. G. Carmichael, A. Chapelle, J. E. Chow, W. M. Christie, A. G. Clark, T. L. Clark, I. A. Clarke, W. A. Cochrane, C. H. H. Coetzee, R. C. Crawfurd, M. W. Danzig, H. J. Davidson, J. Dick, D. Dunlop, R. B. Eadie, H. F. Ferguson, G. W. M. Findlay, F. J.-N. Fook, E. Fullerton, E. L. Galgut, Helen M. Gall, A. B. Grant, R. G. Haggarty, F. M. Halley, J. A. Henderson, J. Hepburn, H. A. Hewat, Helen G. Hewat, R. M. Hume, A. I. Humphreys, J. E. Hurwurth, O. D. Jarvis, F. J. C. Johnstone, C. W. S. D. Jones, A. Kennedy, S. A. Kuny, Jean E. Larche, N. B. Laughton, A. R. Laurie, R. Lawson, A. J. E. G. Lim, H. H. I. G. Lim, J. G.

Louden, J. E. M'Cartney, Helen M'Dougall, I. M'Dowall, R. J. S. M'Dowall, W. M. Mackay, M. M'Kerrow, J. H. Mackie, R. M'Kinlay, J. W. Malcolm, D. Malloch, W. Marwick, M. F. Meiring, C. E. Mervon, R. W. H. Miller, Isabella Morison, T. C. St. C. Morton, J. S. Munro, W. T. Patterson, R. N. Phease, W. B. Postlethwaite, J. W. Potter, O. D. Price, W. J. Purdy, J. S. Rankin, C. B. B. Reid, N. L. Reis, J. W. G. H. Riddel, J. W. Riddoch, J. Rodger, W. Shanks, A. H. Shennan, J. M. Smith, J. M. Stalker, M. Stewart, S. H. Stewart, T. M. J. Steuart, C. W. Stump, J. Suares, L. G. Thomas, G. Torrance, A. E. P. Vanier, B. P. Varma, J. Walker, J. S. Webster, M. E. Willcock, J. M. Wishart, H. D. Wright, Margaret K. J. Wright, C. J. Young. *Chemistry:* F. A. Anderson, J. M. Anderson, J. S. Armstrong, T. Bahadur, F. W. W. Baillie, M. Barseghian (Basil), G. E. Besson, I. Block, I. Borrah, J. Brown, H. J. Bruwer, F. J. Cahir, A. F. Campbell, A. G. Carmichael, J. E. Chow, A. G. Clark, T. L. Clark, I. A. Clarke, W. A. Cochrane, C. H. H. Coetzee, M. W. Danzig, H. J. Davidson, J. Dick, D. Dunlop, H. F. Ferguson, G. W. M. Findlay, F. J. N. Fook, E. Fullerton, E. L. Galgut, Helen M. Gall, R. G. Haggarty, J. A. Henderson, J. Hepburn, H. A. Hewat, R. M. Hume, J. E. Hurworth, E. B. Israel, M. K. Jardine, O. D. Jarvis, C. W. S. D. Jones, A. Kennedy, S. A. Kuny, Jean E. Larche, N. B. Laughton, B. Lawson, A. J. E. G. Lim, H. H. I. G. Lim, P. M. Little, T. J. Lloyd, J. G. Louden, J. E. M'Cartney, Helen M'Dougall, I. M'Dowall, R. J. S. M'Dowall, G. C. M'Ewan, A. L. M'Ilwaine, W. M. Mackay, M. M'Kerrow, J. M'Leman, I. R. Macphail, D. Malloch, A. P. Meiring, M. F. Meiring, R. W. H. Miller, J. S. Munro, R. F. T. Newbery, R. N. Phease, W. B. Postlethwaite, J. W. Potter, W. J. Purdy, J. W. G. H. Riddel, J. W. Riddoch, I. Rostowsky, A. J. D. Rowan, A. H. Shaikh, B.A., W. Shanks, A. H. Shennan, J. M. Smith, S. H. Stewart, T. M. J. Steuart, C. W. Stump, J. Suares, A. J. Taylor, G. Torrance, A. E. P. Vanier, J. Walker, J. W. Watthews, J. S. Webster, J. S. Westwater, M. E. Willcock, W. Williams, J. M. Wishart, H. D. Wright, C. J. Young.

SECOND M.B., CH.B.—*Physiology:* C. W. Aikman, H. S. A. Alexander, R. H. Alexander, W. W. Anderson, C. Atkinson, J. H. Baird, R. G. Bannerman, M.A., R. Mary Barclay, J. W. Bennett, J. Biggam, H. E. Collier, W. M. Dickson, T. Doe, G. D. Fairley, M.A., H. R. Friedrichs, R. E. Gibson, G. F. P. Heathcote, Gertrude Hersfeld, J. Hogarth, S. Huddlestone, C. P. M. Joubert, H. B. Kirk, C. G. Lambie, P. T. T. Macdonald, M.A., R. M. Mackay, J. J. R. Mackenzie, E. Mansfield, G. Millar, E. M. Molesworth, G. T. Mowatt, G. S. Pirie, R. C. Rogers, M.A., B. Shires, H. J. Simson, A. F. Sinclair, H. C. Sinderson, J. Sircar, B.Sc., F. M. Stewart, F. E. Tillyard, F. G. Wright. *Anatomy:* E. W. Adcock, S. Arnott, Mary A. H. Baird, E. G. von B. Bergh, J. V. Buchanan, A. Cameron, W. S. H. Campbell, J. W. Cannon, K. D. Falconer, T. C. Findlater, A. C. Giles, D. Gilmour, D. A. R. Haddon, Julia V. Henslow, J. H. Hood, J. H. G. Hunter, R. W. R. Jones, J. L. C. Lagois, J. Lawson, J. I. Lawson, J. Loftus, J. M'Caig, Margaret N. MacCallum, W. Mackenzie, Celia M. C. MacNeil, G. M'Neill, D. M'Vicker, Jean G. Marie, S. L. Mitra, S. R. Moll, R. M. Muir, W. H. Pallett, D. Pottinger, C. D. Rogers, C. Sand, J. Sircar, B.Sc., S. W. H. Stuart, G. T. Vijver, J. H. D. Watson, W. G. Weston, E. L. White, A. Wotherspoon, G. D. Yates.

THIRD M.B., CH.B.—*Pathology:* H. F. W. Adams, P. Baillie, S. K. Basu, J. H. Boag, W. A. Bowie, W. N. G. Boxer, G. M. Brown, W. E. Bullock, B.Sc., P. W. Carruthers, S. C. Chatterjee, A. F. Cowan, P. K. Dey, D. A. Donald, J. M. Donnan, A. K. Forbes, W. R. Gardner, J. Geoghegan, A. S. Glynn, C. Gordon, A. C. V. Green, J. W. C. Gunn, M.A., J. F. C. Haslam, R. C. Irvine, T. W. Jackson, F. N. Johns, K. L. Kapur, L. Levy, W. S. Lindsay, B.A., G. J. Linklater, R. L. Lloyd, M. R. Macaulay, A. M. MacKay, M. R. MacKay, E. F. W. Mackenzie, F. de S. M'Menamin, H. Mahmud, A. Mearns, A. J. A. Menzies, M.A., R. W. Miller, A. H. Murch, B. P. B. Naidu, S. O'Flynn, E. E. S. P. Pattison, C. R. Patton, H. F. Penman, C. Scales, D. M. Smith, J. W. Steel, R. Thorp, M. A. Wajid, Mary B. Walker, G. Wilson, P. C. V. Woudberg, A. Wright, Mg Ba Yin. *Old Regulations:* C. M. Austin, E. O. Beckley, J. P. Blockley, J. R. Bulman, G. Harrison, T. M'Fetridge, F. G. Power, T. W. Smart. *Materia Medica:* R. P. Anderson, F. C. K. Austin, P. Baillie, W. Barclay, J. C. Booth, R. M. Brown, M.A., W. T. Brown, W. K. Chalmers, T. W. Clarke, A. Cowe, Lucy D. Cripps, A. M. Davidson, P. K. Dey, Janet S. Doak, D. A. Donald, G. K. Edwards, F. G. Foster, J. Gifford, B.A., A. C. V. Green, Agnes R. H. Greig, Muriel H. Kerr, C. Larsen, G. J. Linklater, J. S. Lloyd, J. S. M'Laren, J. T. H. Madill, D. Martin, G. E. Martin, M.A., J. Maxwell, S. C. Mitra, A. J. M. C. Morrison, K. P. Pannikkar, E. Percival, W. W. Phillips, A. N. Pollock, E. D. Pullon, B.Sc., A. Rahman, G. Rankine, D. S. Robertson, M.A., W. J. Robertson, L. R. Sharples, H. K. Shaw, Ruby Thomson, C. V. Thornton, W. StC. Thwaites, H. L. Tikku, B.A., P. G. Tuohy, G. Walker, J. Walker, Janet P. Walton, D. G. Watson, M.A., B. Weinbren, W. G. Wyllie, Mg Ba Yin.

FINAL.—*Midwifery:* W. J. Adie, J. R. Aeria, R. Aitken, J. E. Allan, W. H. Armistead, A. A. Atkinson, W. R. Bayne, P. W. P. Bedford, H. Bedingfield, D. Bell, A. J. Bennee, A. G. Biggam, C. M. Birnie, H. F. Blacklee, R. B. Blair, A. Bloom, N. H. Bolton, J. R. Boyd, N. H. Bronnum, D. L. Brown, W. Bruce, H. M. Buchanan, C. Burnham, F. D. Cairns, W. Campbell, E. R. Carlos, M.A., B.Sc., R. C. Carlyle, A. B. Cheves, Anna Chose, G. J. Cillie, Lilian Cook, A. N. Craig, F. W. Craig, D. H. D. Cran, B. A. Crow, R. Dow, J. M. Drew, B.A., G. M. Elliott, H. H. C. Fuller, P. K. Ghosh, K. A. Gilchrist, J. M. Gillespie, R. G. Gordon, B.Sc., C. W. Graham, J. V. L. Grant, J. Gray, J. W. Gray, M.A., H. F. G. Hall, T. Hayhurst, A. M. V. Hesterlow, J. G. Hill, S. Hodgson, H. F. Holmden, H. J. Hopps, J. L. Huggan, A. Jassinowsky, W. H. Johnston, B.A., N. J. Judah, B. B. Kapila, Cicely M. Kerby, H. W. Kerrigan, H. A. Khin, A. L. Krogh, A. Langwill, D. C. Lee, G. L. Leggat, A. S. Loutit, B.A., A. H. Louw, F. R. Luke, Eva M. Lyon, G. M'Connell, I. C. Macfarlane, J. W. M'Kinney, W. S. M'Laren, P. M'Nab, J. G. MacQueen, C. D. Maitland, B.Sc., L. B. C. Marksman, C. de C. Martin, J. S. S. Martin, W. C. B. Meyer, B.A., A. B. Mitchell, A. E. Moore, J. T. Morrison, R. V. Morrison, T. P. Noble, M. J. Paris, R. Park, H. G. Parker, B. Prasad, H. H. Proudfoot, Mary D. Rankine, S. D. Reid, G. Richardson, H. A. von Ronn, M. Rougvie, L. Sammy, J. Scott, E. St. J. Seelly, R. G. Shaw, S. F. Silberbauer, W. D. D. Small, B. M'C. Smith, S. S. Sokhey, B.Sc., B. H. H. Spence, R. S. Stevenson, H. H. Stewart, R. M. Stewart, S. D. Stewart, W. Stewart, J. H. Tennent, C. M. B. Thatcher, G. ap Thomas, A. H. Towers, A. L. Urquhart, J. van O. de Villiers, C. D. Walker, C. C. Wang, D. Watson, F. H. C. Watson, H. W. Webb, H. E. Y. White, J. B. Wilkie, D. M. Wilson, W. Q. Wood.

QUEEN'S UNIVERSITY OF BELFAST.

THE following candidates have been approved in the subjects indicated:

FIRST M.B. (*Chemistry*).—W. L. Agnew, J. B. Alexander, R. G. B. Calvert, P. Clarke, D. Corry, J. Cullenan, C. F. Davey, T. W. E. Elliott, Lizzie Finnegan, Mary A. Gallagher, A. Gaston, Mary E. Henry, S. J. Hutchinson, P. Kane, R. G. M'Elney, J. W. M'Kee, T. B. M'Kee, J. C. M'Millan, Sylvia Marsh, J. F. Meenan, A. J. Millar, T. Milling, J. B. Minford, F. P. Montgomery, W. N. Montgomery, H. Moore, J. J. Murray, A. Porter, W. Russell, J. P. Smyth, A. C. Taggart, W. A. Thompson, Elizabeth S. Walker, R. F. Walker, D. K. Watterson, N. W. F. Wheeler, T. K. Wheeler. *Physics.*—W. L. Agnew, J. B. Alexander, R. G. B. Calvert, P. Clarke, D. Corry, C. F. Davey, J. Dunlop, Lizzie Finnegan, Mary A. Gallagher, A. Gaston, W. J. Harvey, S. J. Hutchinson, P. Kane, J. J. Kerr, R. G. M'Elney, J. C. M'Millan, J. F. Meenan, T. Milling, F. P. Montgomery, A. Porter, J. P. Smyth, W. A. Thompson, L. Tweedie, T. K. Wheeler. *Zoology.*—L. Jefferson, J. J. Kerr, A. J. Millar, J. N. Smith, J. J. Walker, J. G. Wilson, F. N. Woods, R. Woodside. *Botany.*—C. F. Davey, S. J. W. Donald, G. Gordon, C. C. Humphries, L. Jefferson, J. J. Kerr, J. R. M. Mackenzie, R. J. Maguire, W. Russell, F. R. Sinclair, J. N. Smith, R. F. Walker.

SECOND M.B. (*Anatomy and Physiology*).—*N. Beattie, †E. C. Emerson, W. Gault, H. P. Hall, H. M. Jackson, W. S. Lynd, W. M'K. H. M'Cullagh, V. Magee, V. C. Montgomery. *Anatomy only.*—T. M. Adamson, F. L. Cleland, S. M'Comb, E. U. M'William, S. E. Picken, H. R. Sinclair. *Physiology only.*—E. W. Mann, A. G. Mitchell, R. S. Ross, Martha J. M. Stewart.

THIRD M.B. (*Pathology, Medical Jurisprudence, and Hygiene*).—W. F. Algeo, †J. H. Beverland, Sarah E. Calwell, F. Carson, S. H. Davison, *S. R. Foster. C. L. Gaussen, J. M'I. Gibson, *N. B. Graham, *N. C. Graham, J. V. Holmes, J. T. Kyle, H. H. C. Lynch, J. Lyons, J. M'Fadden, M. M'Ging, E. M'Sorley, I. W. M'Gill, *R. Marshall, H. H. Mulholland, W. Tyrrell, W. M'N. Walker. *Medical Jurisprudence and Hygiene only.*—S. Acheson, W. W. Allison, H. A. Skillen. *Materia Medica, Medical Jurisprudence, and Hygiene.*—J. Porter. *Pathology and Medical Jurisprudence only.*—A. E. H. Reid. *Pathology and Materia Medica.*—L. D. I. Graham, H. V. Walsh, J. R. White. *Medical Jurisprudence only.*—J. Hill, E. Morison. *Pathology only.*—J. Patrick, W. Wilson, S. I. Turkington. *Materia Medica and Physiology under Old Regulations.*—E. W. Mann.

FINAL.—S. Campbell, P. J. Gaffikin, G. S. Glass, W. S. Haydock, R. J. M'Feeters, J. P. J. M'Givern, U. J. G. Mulligan, ‡W. Paul, A. H. Rentoul.

D.P.H. (*Both Parts*).—G. F. Campbell, J. E. Clements, J. Dodd, J. M'Gill.

* With honours. † With honours and recommended for a prize. ‡ With second-class honours.

UNIVERSITY OF SHEFFIELD.

THE Council has made the following appointments:

Mr. R. J. Pye-Smith, Ch.M.Shef., F.R.C.S., to be Emeritus Professor of Surgery.

Mr. Arthur M. Connell, F.R.C.S.Edin., to the Lectureship in Surgery, which was rendered vacant through Dr. Sinclair White's appointment to the Professorship of Surgery.

Mr. J. D. Fiddes, M.A., B.Sc., M.B., Ch.B.Aberd., to the Demonstratorship in Anatomy, in succession to Mr. Alexander Wilson, resigned.

Professor Beattie has been appointed representative of the university at the celebration of the five hundredth anniversary of the foundation of the University of St. Andrews, to be held from September 12th to 15th next.

UNIVERSITY OF TORONTO.

President's Report.

FROM the report of the President of the University of Toronto for the academic year ending last June it would appear that, despite the fact that a higher matriculation standard has been applied and the length of the curriculum for some of the degrees increased, the number of undergraduates is growing rapidly and steadily. In the year under consideration the total was 4,044. The university has six faculties, which, placed in the order of the relative number of students, are as follows: Arts (2,314 students); Applied Science (730); Medicine (641); Education (237); Household Science (85); Forestry (40). The degrees granted numbered 704, and included, besides those specifically indicated by the names of the faculties, degrees in music, law, veterinary science, and pharmacy. It is stated that for some professions more students are being educated than can find employment in the province of Ontario itself, but that there is plenty of room for them in other parts of Canada. In the faculties of medicine and of forestry there are combined courses which lead to degrees in arts as well as to those of the faculty primarily concerned. In the Medical Faculty this combined course takes seven years, and is known as the physiological and bio-chemical sciences course; the B.A. being obtained in four years, and the M.B. in three more years. A corresponding course in the Faculty of Forestry takes six years.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Prize Awards.

THE following are the winners of the first and second prizes awarded for the work of the winter session:—*Systematic Anatomy:* W. H. Carden, and L. S. O'Grady and R. P. Weldon (bracketed equal). *Practical Anatomy* (first year): A. F. Carbury and P. J. Polson. *Practical Anatomy* (second year): M. Shipsey and W. Morrow. *Practice of Medicine:* M. J. Hillery and V. J. White. *Surgery:* M. J. Hillery and V. J. White. *Midwifery:* M. J. Hillery and V. J. White. *Physiology:*

W. H. Carden and R. P. Weldon. *Chemistry:* L. M. Rowlette and P. J. Polson. *Pathology:* G. N. Smyth and G. E. Pepper. *Physics:* J. W. E. Graham and J. C. Fergusson.

In each subject the first prize was a medal and £2 in money, and the second a certificate and £1 in money.

Work for the summer session commenced on April 3rd.

Medico-Legal.

CERTIFICATE OF MEDICAL OFFICER TO A FRIENDLY SOCIETY.

A CASE of some interest to the medical profession has been decided by Sheriff Gardner Miller, Glasgow, in which a man named Rowan sued Dr. Dunning, Glasgow, for £275 damages for granting a certificate excluding him from benefits given by a society of which the pursuer was a member. The Sheriff Substitute found in favour of the doctor, and the pursuer appealed against this judgement, which, however the Sheriff Principal has now confirmed.

In his "note," the Sheriff said pursuer was a member of the Glasgow and West of Scotland District Branch of the Irish National Foresters, and defender was the surgeon employed by that society to examine the cases of injured members with a view of certifying their condition to the society. There was no privity of contract between pursuer and defender, as pursuer's contract was with the society, under which he was entitled to certain benefits. Defender was not employed by pursuer, but by the society, to which he acted as an independent adviser with regard to the cases brought before them. Accordingly, the present action could not be on the ground of breach of contract, and the only ground was that of a delict committed by defender on pursuer. The Sheriff had some doubt whether pursuer had stated a relevant case upon that ground. The delict was said to be that defender gave a certificate with regard to pursuer which he knew to be false, or otherwise that he culpably and recklessly granted this certificate. Pursuer's remedy, if he were deprived of the benefits of the society, seemed to him to be against the society itself for breach of their engagement. He seemed to have taken full advantage of his recourse against the society in the method open to him, because he said he appealed from the decision of his section of the Branch Arbitration Committee and afterwards to the District Arbitration Committee of the society when the decision went finally against him, and now he sought to make defender liable in respect of his certificate. Assuming that the action was relevant, the Sheriff was clearly of opinion that pursuer had failed to prove that defender's certificate of September 14th, 1909, was false, or that defender had any reason to believe that it was false, or that the certificate was either culpably or recklessly granted. Defender had stated in the witness-box that he believed the certificate to be true, and that evidence was supported by the evidence of Sir George Beatson, Dr. Alexander Moffat, and Dr. George Henry Edington, who stated that, from the examination of pursuer's arm which they made shortly before the proof, he had quite recovered from the accident then, and that, from what they saw, they thought it was highly probable that he had recovered at the date when that certificate was granted. Drs. Maylard and Young had stated that they did not think pursuer had recovered; but, while they differed from the defender upon the medical question, they did not say that the certificate must in their opinion have been false within his knowledge, nor that a person who granted such a certificate must have acted culpably and recklessly, found their evidence therefore fall short of what was necessary to sustain pursuer's case. In the Sheriff's judgement there was no proof whatever of lack of professional honour or skill on the part of defender.

The Services.

REGIMENTAL MEDICAL EXERCISE.

THE Lowland Mounted Brigade Field Ambulance carried out a most interesting and instructive medical exercise in Ayrshire on March 19th, under the direction of Lieutenant-Colonel Gordon Hall, R.A.M.C., and Major W. D. Erskine, R.A.M.C., Staff Officer to the A.M.O. Lowland Division. All the officers of the unit took part, and also Major Shaw and Captain James A. Aitken of the 2nd Lowland Field Ambulance, and Captain Fraser, R.A.M.C., Adjutant of the School of Instruction. The preliminary work entailed the study of a scheme of a hostile landing at Stranraer, the work of the cavalry from Maybole towards the various crossings of the River Ayr, and the possible developments as they affected the work of medical officers and units. Two tasks were set each officer for a meeting on March 18th, when the results were discussed. Thereafter the company proceeded to Ayrshire, and studied the problems on the ground, covering the distance from Girvan to Maybole, Coylton and Ayr by motor car. Meals were served at Turnberry and Ayr, and lectures delivered by Colonel Gordon Hall and Lieutenant-Colonel Halliday, commanding the unit. Fresh tasks were also set and discussed. This was the first tour undertaken by the unit, but arrangements are being completed for further interesting work during the season.

Medical News.

THE annual meeting of the Society for the Study of Inebriety will be held in the Rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, W., on Tuesday, April 11th, at 4 p.m. A short address will be delivered by the President, after which a discussion on "Alcohol and Insanity" will be opened by Dr. F. W. Mott, F.R.S.

BEFORE finally choosing the London memorial to King Edward VII, the Mansion House Committee is to consider a proposal urged by the National League for Physical Education and Improvement. It holds that the best memorial to him who said, "If preventable, why not prevented?" would be a centre for all popular health crusades created by building in Kingsway a permanent exhibition or museum of hygiene with connected lecture rooms. Copies of a pamphlet detailing the scheme can be obtained from the Secretary of the League, 4, Tavistock Square, London.

THE council of the Nightingale Fund has presented to Mr. Lunn (late Medical Superintendent of the St. Marylebone Infirmary, W.) a picture, entitled, "Flooding," by Reginald Jones. It bears the following inscription: "Presented to Mr. John R. Lunn, F.R.C.S., in recognition of the valuable services rendered by him to the training school of nurses at the St. Marylebone Infirmary, at the time of its establishment by the guardians of St. Marylebone with the co-operation of the late Miss Florence Nightingale until his retirement, July 9th, 1910, and in remembrance of the interest she took in it, and the sympathy she showed in its success."

THE St. John Ambulance Brigade has placed the whole of its metropolitan corps at the disposal of the police authorities during the Coronation festivities for day and night duty, and has undertaken to bring up from the various provincial corps as many more members as may be deemed necessary. The metropolitan corps numbers 2,000, the provincial corps bringing up the total strength available to over 20,000. During the funeral procession last year the brigade had upon duty 1,400 men, and attended between 6,000 and 7,000 cases of injury and illness

A NURSING conference has been in progress during the current week at the London County Council Technical Institute in St. Vincent Square, the proceedings commencing on Tuesday and concluding on Friday. On Tuesday massage was discussed in the afternoon, under the chairmanship of Dr. May Thorne, and in the evening midwifery, under the chairmanship of Dr. Elizabeth Macrory. On Wednesday the subject was mental nursing, the speakers including Sir James Crichton-Browne, Dr. Robert Jones, and Sir William Collins. The rest of the programme included a discussion on district nursing and midwifery, under the chairmanship of Sir Francis Champneys, on Thursday; and on Friday a discussion on race degeneration and eugenics, introduced by Dr. Murray Leslie, with Dr. G. E. Shuttleworth in the chair.

MRS. S. A. BARNETT has reprinted in a small pamphlet the paper which she read at the Church Congress last autumn on the State treatment of widows who have children dependent on their personal exertions. Mrs. Barnett contends that the money spent by boards of guardians in assisting such women is for the most part at present wasted, either because it is inadequate in amount or because the mothers are too ignorant, too careless, or too busy to spend it properly. Mrs. Barnett, as the outcome of the experience of thirty-three years' work in Whitechapel, would have these cases treated in one of several ways. Briefly summarized, these are as follows: (*a*) If the mother has the same sort of qualities as those habitually sought for in the foster parents of boarded-out children, the State should board out with her her own children, subjecting her to the supervision of an ordinary boarding-out committee; (*b*) less competent mothers she would group in cottages under supervision, employing them for part of the day at one of the official institutions for the infirm or imbeciles scattered all over the country; (*c*) widows too ignorant to be effective mothers she would educate to rear their own children at the expense of the State; (*d*) to women already suitably employed, but too busy to attend to their household duties, she would afford relief on condition that they so arranged their work as to allow them to attend to their household duties or to secure proper assistance. From other widows requiring assistance she would remove their children altogether, sending them for choice to the colonies, in order that when of wage-earning age they may not be ruined by a bad parent.

Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

M.D. desires information regarding the climate of Barbados from the point of view of English residents there.

L. asks what dose of tuberculin is recommended for an early case of phthisis with tubercle bacilli, and how often should it be used.

Haemorrhage desires to hear of a book on the treatment of emergencies suitable to be placed in the hands of a nurse or matron of a small sanatorium.

J. F. asks for advice in the treatment of a girl, aged 16, who has developed a thick, fluffy growth of hair on the face and neck. Electrolysis has been tried, but is too tedious.

Q., who has conducted treatment according to the recommendations of the textbooks for some time, asks for advice in the management of a case of writer's cramp which tends to grow worse.

Pigment desires information (or reference to where it may be obtained) regarding the constitution of human hair pigment, and the best means of removing the pigment in a black patch of hair.

J. J. asks for advice in a case of nocturnal incontinence of urine in a boy of 12 years. The urine seems normal. The following have been tried, but without relief: Belladonna, circumcision, passing of sounds, and training the stopping mechanism.

Cane Sugar and Heart Disease.

Dr. F. W. Jollye (Alresford, Hants), after expressing his interest in the paper by Dr. Goulston on the beneficial effect of the ingestion of cane sugar in certain forms of heart disease, published in the Journal of March 18th, p. 615, writes: I should like to ask Dr. Goulston what alterations he made in the previous diet after the addition of sugar. Many cases of heart disease are much benefited by the restriction of the diet or even the total withdrawal of all food administered by the mouth and feeding by the rectum substituted. This method of feeding lessens the flatulent distension of the stomach and allows its walls to contract, and considerably lessens the embarrassment of the heart's action. It is recommended by physiologists that the addition of fats or carbohydrates should be resorted to if an additional source of energy is required, and which in cases depends upon the digestion of the patients, but that sugar is preferable when a rapid output of energy is required.

ANSWERS.

Dubious, who asks as to the scheme for improvement of the Royal Navy Medical Service, is advised to "wait and see."

Astigmatism and Intolerance of Mydriatics.

Dr. Joseph Jones (Leigh, Lancashire) writes: "Exile" does not say whether his patient tolerates cocaine. If she does, he might dilate the pupil by its aid, which will give him a brighter reflex in the performance of retinoscopy, and enable him to arrive at some result, even though the accommodation be not paralysed.

Treatment of Prostatic Urethritis.

Mr. James MacMunn (Finsbury Pavement) writes: In answer to "Inquirer," I used saturated solution of tannic acid a few times in the past in the treatment of prostatic urethritis. On one occasion epididymitis and vesiculitis were caused, but I have not met the other complications mentioned. I consider tannic acid peculiarly irritating to the deep urethra, and look upon the complications which often arise as being due to this fact, and not to the blockage of ducts, which blockage after all would be very temporary. Glycerine of tannin and tannic acid in rectified spirits I often used with benefit through a long endoscopic tube in atonic as distinguished from inflammatory states. Tannic acid should never be injected, and all irritating prostatic applications should be preceded by a sedative rectal injection of such things as antipyrin, morphine, cocaine, etc., best in combination. I may add that some of my patients suffering from subacute posterior urethritis have volunteered the statement that watercress did them more marked good than anything else. The point is interesting considering the chemistry.

LETTERS, NOTES, ETC.

"Bacillus Coli" in Urine.

Dr. W. H. Spurgin (Newcastle-on-Tyne) writes that in a case of herniotomy which developed *B. coli* in the urine rapid improvement followed the use of helmitol in conjunction with a saline mixture containing cascara.

*** Helmitol is stated to be the anhydro-methylene citrate of hexamethylenetetramine; the trade name of hexamethylenetetramine is urotropine.

Country Homes for Tuberculous Joint Disease.

Miss M. E. Broadbent (London) writes: My attention has been called to a statement with regard to almoners in the report which you kindly gave of the conference convened by the Invalid Children's Aid Association (British Medical Journal, March 25th, p. 717), and I shall be grateful if you will allow me to correct it. Speaking unexpectedly and without preparation, I may inadvertently have given rise to a false impression, but I desire to say that the workers of the Invalid Children's Aid Association have always found the help of the almoners of the London hospitals of the greatest possible value. The almoners constantly refer children to us, quoting the opinion and wishes of the member of the staff under whom the children are, and they act as a link between the hospitals and the outside agencies, which are ready to co-operate in obtaining the treatment required.

Continuous Antiseptic Inhalation in Pulmonary Tuberculosis.

Dr. C. Muthu (Hillgrove, Wells) writes: I am sorry that in the Journal of March 18th, p. 656, Dr. Pereira alleges haemoptysis as a result of continuous inhalation in a case of pulmonary tuberculosis. I have used continuous inhalation in more than 300 cases, and have not found any ill effect even in a single case. Of course a little caution and discrimination is necessary in regulating the dose, in selecting the patients, etc. For instance, it is not wise to saturate the inhaler with an inhalant containing some irritant drugs, and to use it in cases of advanced tuberculosis where a sudden fit of violent coughing might be likely to cause rupture of a blood vessel already diseased. The dose should be small to begin with, say, 10 drops sprinkled every half-hour, and gradually increased. I use a mixture of formalin, chloroform, menthol, pumiline pine, and rectified spirit, sometimes with the addition of creosote. Here the formalin is administered not only for its antiseptic properties, but also for its hardening and soothing effect on the mucous membrane of the bronchial and air passages, thus minimizing irritation and cough. To obtain the best effect, continuous inhalation should be combined with the open-air treatment which includes manual exercises.

Osteo-arthritis and its Relation to Chronic Rheumatism.

Dr. W. J. Midelton (Bournemouth) writes: Dr. Buckley has not grasped my point. I contend strongly that infection should be considered the chief factor in the production of arthritis. I do not believe that, apart from infection, cold, damp, trauma, worry, or shock can set up arthritis. Also I still contend that the attempt to classify arthritis as rheumatoid, osteo-arthritis, infective arthritis, etc., as if each were a different disease, leads to confusion. Gout and rheumatism should be considered infectious diseases—that is, due to micro-organisms. I am very emphatically in favour of searching for causes, and do not wish to throw cold water on the attempt to isolate a micro-organism and prepare a vaccine. I wished to point out that in my opinion any micro-organism may set up the train of signs and symptoms said to be characteristic of rheumatoid arthritis. This being so, how are we to deal with a case of arthritis in which many germs are present and contribute? How are we to say which particular germ is the chief factor? Are we to fold our hands and wait until a long series of costly investigations has been carried out before we commence treatment? I take it Dr. Buckley does not hesitate to prescribe Buxton waters and various baths in nearly all diseases coming under his care at Buxton, and I doubt very much if he or any one else is fully aware of all the causes that have contributed to each. He struck a keynote when he alluded to greater powers of resistance in some patients than others.

Poison Bottles.

We have had an opportunity of examining a new device for the prevention of cases of poisoning due to accidental confusion of medicine bottles. Attention is drawn to the nature of the contents by a glass collar, which is kept projecting above the orifice of the bottle by means of a loose spring. Such collar must be pressed down before the contained liquid can be poured out. The device is novel and should take a good place among its rivals. Further information can be obtained from the inventor, Mr. F. G. Meyer, 33, Grosvenor Park, London, S.E.

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